BOTANICAL TERMINOLOGY.

BOTANICAL TERMINOLOGY,

OR

DICTIONARY

EXPLAINING

THE TERMS MOST GENERALLY EMPLOYED

IN

SYSTEMATIC BOTANY.

BY

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TO

JAMES WOODFORDE, JUN. M. D.

EXTRAORDINARY MEMBER OF THE ROYAL MEDICAL SOCIETY,

AND

MEMBER OF THE WERNERIAN AND PLINIAN SOCIETIES,

WHO,

BY THE PUBLICATION OF HIS CATALOGUE OF PLANTS

GROWING IN THE VICINITY OF EDINBURGH,

HAS RENDERED SIGNAL SERVICE

TO THE STUDENT OF BOTANY;

THIS WORK

IS DEDICATED,

AS A TESTIMONY OF RESPECT AND ESTEEM,

BY HIS SINCERE FRIEND

THE AUTHOR.

PREFACE.

In the commencement of his studies in the science of Botany, the author experienced considerable embarrassment, from the difficulty of acquiring a just idea of the import of the technical terms employed by writers who treat on this subject. To overcome this difficulty, he found himself compelled to have recourse to a multitude of books, and to waste much time, in searching after the meaning even of the terms in general use. With a view to his own convenience, he at first commenced a compilation on this subject, which now, with few alterations, except in the alphabetical arrangement, he has been induced, by the repeated solicitations of friends, to lay before the public.

A cheap and convenient book of reference of this nd, has long been a *desideratum* among students of otany; and, in attempting to supply this deficiency,

the author is led to hope that his exertions will not prove altogether fruitless.

He has thought it advisable to make the book of a size fit to bind up with Sir J. E. SMITH's *Compendium Floræ Britannicæ*, as likely to form a useful appendage to that work.

In the arrangement of the terms, reference is made to the Stem, Leaf, Root, Calyx, Corolla, &c.; and, of the more important kinds of these, he has quoted plants which afford examples in illustration.

He has subjoined a tabular view of the Linnean System of Classification, adopting, however, in the class Cryptogamia, the improvements of later writers.

He cannot omit expressing in this place his warm acknowledgements to Dr GRAHAM, the distinguished Professor of Botany in the University of Edinburgh, for the encouragement which he has received from his patronage in the prosecution of the work. To Dr GREVILLE, the eminent author of the Flora Edinensis, he is also indebted for many suggestions in the progress of this undertaking, and his esteem he cannot too highly appreciate.

Whatever deficiencies may be found in the execution of the work, he trusts that the eye of criticism

will not hastily condemn his motives, or undervalue an attempt to facilitate the study of a science, which has of late risen nearer to its just rank in public estimation, and which daily tends to enlighten our mind, and is continually unfolding to us new sources of wonder and delight.

BOTANICAL TERMINOLOGY.

A

A, prefixed to a word is called *à* privative, and signifies without, as *acaulis*, without a stem.

Abbreviatus (from *ab* and *brevis*), a part being shorter than the rest, as is exemplified in some calyces.

Abortiens (from *ab* and *orior*), barren, applied to flowers, or florets, which produce no perfect seeds.

Abortivus, abortive, the same as *sterilis*, and is applied to dicœcious plants. Vide Flos masculus.

Abruptus (from *ab* and *rumpor*), applied to a pinnate leaf which has no odd leaflet.

Acalycinus (from *à* priv. and *calyx*, a flower-cup), when there are no calycine scales or thorns.

Acalycis, (from *à* priv. and *calyx*, a flower-cup), applied to plants which are destitute of a calyx or perianth.

Acalyptratus (from *à* priv. and *calyptra*), a veil or covering), applied to the capsules of some mosses, which are destitute of a calyptra.

Acaulis (from *à* priv. and *caulis*, a stem), stemless, applied to plants which are destitute of a stem, as in *Viola odorata, hirta, Gentiana acaulis, Silene acaulis*, &c.

Accrescens (from *ad* and *cresco*), increasing.

Accumbens (from *ad* and *cumbo, à cubo,* to recline), when one part is placed on the edge of another, as the radicle on the margin of the cotyledons of *Sinapis nigra.*

Acerosus (from *acus, à* Gr. ακις, *cuspis*), acerose, needle-shaped; applied also to a leaf. Vide Folium.

Achenium (from ακην, *poor, needy*), an apparently naked seed, which, besides its proper covering, has a calyx overspreading it, as in some of the natural family of the *Compositæ,* and the *Umbellatæ.* Both these naked seeds are called by De Candolle *carpella.*

Acicularis (from ακη, *acies,* sharp-pointed), the trivial name of *Scirpus acicularis.*

Acinaciformis (from *acinacies* and *forma*), scymitar-shaped, applied to a fleshy, compressed leaf. Vide Folium.

Acini, granulations or berries which are enclosed in a pulp, as in *Rubus idæus, Ribes Grossularia,* &c.

Acorn, the seed of an oak. Vide Glandula.

Acotyledon (from *à* priv. and κοτυληδον, a *seed-lobe*), applied to a seed which is destitute of a cotyledon or seed-lobe, consequently in vegetating produces no seminal leaf. The Plantæ Acotyledones of Jussieu are arranged in the class *Cryptogamia,* and are exemplified in the orders Filices, Musci, Lichenes, &c.

Aculeus from (*acus,* ακις, *cuspis*), a prickle; a species of fulcrum placed upon the surface of the bark, as in the genus *Rosa,* &c.

Acuminatus (from *acus,* a point), acuminate, sharp pointed. Vide Folium.

Acutè-angulus, when a leaf terminates in a sharp angle. Vide Folium.

Acutè-emarginatus, acutely emarginate. Vide Folium.

Acutiusculus, dimin. from *acutus,* slightly acute.

Acutus (from *acus*, ακις, *cuspis*, a point), when an angle terminates in a point; applied to leaves; also to the perianth, as in the genus *Primula*, &c.

Adductores (from *ad* and *duco*, to draw), bodies accompanying the pistil, and resembling it in form and structure, as in the Musci. They are represented by Hedwig as barren pistils.

Adnatus (from *adnascor*, to grow to), adnate, joined, or fixed; applied to the offsets which are joined to the main bulb, as in the genus *Narcissus*; to a leaf which adheres to the stem by the disk to a stipule which is fixed to the petiole (opposed to *solutus*, detached), as in the genus *Rosa*, &c.; to the style adhering to the corolla, as in the genus *Canna*.

Adpressus (from *ad* and *premo*), to press, contiguous, or pressed together. Vide Folium.

Adscendens (from *ad* and *scando*, to climb), ascending, the same as *ascendens*.

Adumbratio (from *ad* and *umbro*, to express), the description of plants.

Adversus (from *ad* and *verto*, to turn towards), applied to a leaf which has its upper surface turned towards the south.

Æqualis (from *æquus*), equal in all its parts, which is exemplified in the first order of the class *Syngenesia*.

Æquans (from *æquo*), equalling.

Æquivalvis (from *æquus* and *valva*), a term implying the valves being of equal portions.

Ærugo (from *ærugo*, rust), the colour of verdigris.

Æstivatio (from *æstas*, summer). By æstivation is meant the situation and folding of a flower before its evolution, viz.

Æstivatio *alternativa*, when parts of the corolla stand in two or more rows, in such a manner that the interior

row is covered partially and alternately by the exterior. This is exemplified in the genus *Lilium.*

Æstivatio *cochlearis,* when one part is larger than the others, and bending itself into a spoon-shape, it encloses them. This is exemplified in the genus *Aconitum;* in some of the *Personatæ,* and in *Antholyza.*

—— *contorta,* in this the parts of the corolla stand so obliquely that they cover the margins of each other. The remarkable family of the *Contortæ,* after the complete evolution, still retains the oblique position of the parts of the corolla, as in the genera *Vinca, Nerium,* and *Arduina;* also in *Dianthus.*

—— *convolutiva,* when the exterior part is bent, and encloses the interior; this again the following, and so forth, as is observed in the cruciform flowers.

—— *imbricativa,* when the parts stand in several rows, and the exterior and shorter parts cover only the base of the interior, as in the common calyces of compound flowers.

—— *induplicativa,* when the parts of a corolla are bent inwards, and touch each other with the folds of their margins; as the margins of the valves in the capsules of the genus *Viola.*

—— *plicativa,* when all the parts fold into one another without any particular order, as in the genera *Papaver* and *Needhamia* (of Br.)

—— *quincuncialis,* when of five parts, two are exterior, and two are interior, and the fifth covering the interior with one of its sides, and is again partially covered by the exterior, as is observed in the calyces of the genus *Rosa*

—— *valvaris,* when the parts of a corolla before evolution only touch one another with their margins like the valves of a capsule. This is observed in compound flowers.

Æstivatio *vexillaris:* this occurs in papilionaceous flowers, the standard covering the other parts of the corolla.

Afora (from *à* priv. and *fora,* a door), applied to plants whose seed-vessels are not furnished with a valvule.

Aggregatus (from *aggrego,* to assemble), an assemblage of flowers or florets, collected into a head by means of some part common to all. Vide Flos.

Ala, a wing; the side petals of a papilionaceous corolla, or a membrane attached to a seed, &c.

Alatus (from *ala*), winged, spreading on each side with membranous wings. Vide Caulis.

Albescens (from *albesco,* to wax white), growing white, or hoary; albescent.

Albidus (from *albeo*), whitish, or inclining to a white.

Albugo (from *albus,* white), mildew, a minute parasitical plant of the class Cryptogamia, appearing frequently on the leaves of plants, and occasioning their decay.

Albumen (from *albus,* white), a white, farinaceous fleshy substance, destined to nourish the embryo of the seed.

Alburnum (from *albus*), a soft white substance found in trees, between the inner bark and the wood, which in time passes into wood itself.

Albus (from ἀλφός), pure white, hoary.

Algæ, the third order of the class Cryptogamia, according to the Linnean system, containing sea-weeds, lichens, and analogous plants.

Alpinus (from *alpes*), a specific name of many plants, indicating that they are peculiar to mountainous situations, as *Lychnis alpina, Veronica alpina, Circæa alpina,* &c.

Alternativus (from *alterno,* to change), parts of a corolla standing in two rows, so that the interior row is covered partially and alternately with the exterior.

Alternus (from *alterno*), alternate; branches, leaves, or

flowers springing out regularly one above the other, as is visible in many plants. Vide Folium.

Alveolatus (from *alveolus*, a cavity), honey-combed. Vide Receptaculum.

Amarus, bitter; also a specific name to many plants, as as *Cardamine amara*, &c.

Ambitus (from *ambio*, to environ), the circumference.

Ambrosiacus (from ἀμβροσία, *ambrosial*), the odour of *ambrosia*.

Amentaceus (from *amentum*), a flower having a species of calyx called an *amentum*.

Amentum (derived by Festus from the Gr. ἄμμα, *vinculum*, s. *nexus*, a bond, or thong; from the French *châton*, a catkin, from its resemblance to a cat's tail), a species of calyx, or more properly inflorescence, consisting of chaffy scales, arranged along a slender thread, which is the common receptacle. In the class Monœcia, this species of calyx is exemplified in *Corylus Avellana*, *Betula alba*, *Quercus Robur*, *Alnus glutinosa*, *Carpinus Betulus*, &c. In the class Dicœcia, it is exemplified in the genus *Salix*, *Populus*, and some others. The term *Amentum* is synonymous with *Julus*, *Nucamentum*, and *Catulus* of former writers.

Amnios (from ἀμνιον, *membrana fœtum*, q. ἀμνος, *agnus*, a lamb, or lamb's skin), the interior covering of a seed, full of a sweet and slimy fluid, which shows after some time a small point, either swimming, or fixed to the side of the vessel, which is the first trace of the embryo.

Amphignastrium (from ἀμφίγνοια, *dubito*), a term denoting a small leaflet which is found under the shoot of the Jungermanniæ.

Amplexans (from *amplector*, to surround), embracing.

Amplexicaulis (from *amplector*, to surround, and *caulis*,

a stem), amplexicaule, a leaf embracing the stem at the base. Vide Folium.

Ampliatus (from *amplio*, to increase), being enlarged. This term is generally applied to the calyx.

Ampulla (from αμφιβολλα, qu. αναβαλλω, to swell out), an air-bladder, a gland, which is found upon the *Utriculariæ* and *Aldrovandæ*.

Anasarca (from ανα, through, and σαρξ, flesh), a disease called dropsy, occasioned by too great an abundance of fluid in plants: it is generally incurable.

Anastomosis (from ανα, through, and στομα, *os*, *oris*, a a mouth), a term applied wherein veins and nerves anastomose, or unite by means of lateral branches.

Anceps, two-edged; a stem being compressed, and formed of opposite acute angles. Vide Caulis.

Androgynus (from ανηρ, *vir*, a man, and γυνη, *mulier*, a woman); a plant is androgynous, when it produces some flowers with stamens only, and some with pistils only, on the same individual plant, without any mixture of such as are hermaphrodite. The Androgynæ Plantæ constitute the class Monœcia, and have frequently an *amentum* for their calyx.

Anfractus (from *am* and *frango*), chinked, as in the seed-lobes of the genus *Fagus*, &c.

Angiocarpus from αγγος, *vasa*, and καρπος, *fructus*), a term applied by Persoon to such of the Fungi as bear their seeds internally, enclosed on all sides. They are either hard, or membranous, tough and leathery.

Angiospermia (from αγγος *vasa*, a vessel, and σπερμα, *semen*, a seed), the second order of the class Didynamia, according to the Linnean system, containing plants with hermaphrodite flowers, which have their seeds enclosed in a capsule, as in the genus *Antirrhinum*, &c.

Angularis (from *angulus*), angular, applied to a capsule which is composed of angles.

Angulatus (from *angulus*), a term applied to the leaf, stem and petiole, which have several acute angles in their circumference.

Angulus (from ἀγκυλος, *incurvus*, a corner), an angle, the point where two lines meet, or surfaces meet one another.

Angustifolius (from *angustus*, narrow, and *folium*, a leaf), narrow-leaved. Vide Folium.

Angustissimus (super. from *angustus*), very narrow.

Angustus, narrow, a term applied to the receptacle of some plants.

Annotinus, leaves and shoots of the year past are termed *annotini*.

Annulatus (from *annulus*, a ring), ringed, applied to a tubular body, which shews small circular prominences. Groups of ferns, with rings to their capsules, are termed *Filices annulatæ*.

Annulus (dimin. from *annus*, qu. *anus*), a ring, a thin membrane, which surrounds the stalk of some Fungi; also a circular belt between the case and lid of the mosses.

Annuus (from *annus*, a circle), annual, is a term applied to a plant which lives only one year: the character to denote it is ☉.

Anomalus (from *à* priv. and νομος, *lex*, a law), irregular; a term applied to plants whose calyx, corolla, &c. are composed of several irregular pieces. Plants which are furnished with a nectarium are reduced to this class of Tournefort.

Anthera (from ανθηρα, ex ανθος, *flos*, a flower), the *apex* of Tournefort and Ravinus; the *capsula staminis* of Malpighi; the tip of Grew. The anther is an organ placed upon the top of the filament, containing pol-

len, which is essential to the germination of seeds Anthers are furnished with one or more cells: in the genus *Mercurialis* it has one cell, in *Orchis* three cells, and in *Fritillaria* four cells. Anthers are sometimes erect, fastened by either extremity upon the top of the filaments, or incumbent, fastened to the side, viz.

Antheræ *erectæ*, when the anthers stand erect upon the filaments, as in *Colchicum autumnale.*

—— *exsertæ*, when they stand out, or appear above the corolla, as occurs in some species of *Erica.*

—— *inclusæ*, when enclosed or shut in the corolla, which occurs also in some species of *Erica.*

—— *incumbentes*, when lying upon the filament, or fastened to it by the sides, as in *Statice Armeria, Ribes nigra, Dianthus deltoides, Pancratium maritimum.*

—— *versatiles*, anthers so poised upon the filament as to turn like a vane, or the needle of a compass, as in the genera *Celosia, Geranium, Clusia, Amaranthus,* and *Eriocaulon.—Note,* The versatile anther is a species of incumbent. In *Canna indica* and the genus *Costus,* the anthers are attached by the sides, not to a filament, but to a nectarium, the upper lip of which in the genus *Costus* serves instead of a filament.

The figure and resemblance of anthers:

Anthera *acuminata;* an anther is said to be acuminate, when tapering to a point, as in the genera *Digitalis* and *Thlaspi.*

—— *acuta*, sharp, when terminating in an acute angle, as in the genera *Symphytum* and *Cerinthe.*

—— *bicornis*, when it has divisions which give it the appearance of two horns, as in the genera *Pyrola* and *Vaccinium.*

—— *bifida*, cleft, divided a short way down, as in the genus *Erica.*

—— *biloba*, lobed, divided more than half-way down

with wide and concave divisions, as in the genus *Euphrasia.*

Anthera *connata,* s. *cohærens,* united together, as in the genus *Utricularia.*

—— *connivens,* approaching or inclining towards each other, as in the genera *Pulmonaria, Borago, Solanum;* and several in the class Didynamia, as *Antirrhinum, Glechoma, Satureja,* &c.

—— *cordata,* heart-shaped, as in the genera *Cupraria* and *Bucida.*

—— *dehiscens,* dehiscent, when it bursts open to discharge its pollen.

—— *didyma,* when swelled out into two protuberances, as in the genera *Ranunculus* and *Mercurialis.*

—— *distans,* a term expressing the remoteness of the anthers from one another, as in the genus *Ziziphora.*

—— *distincta,* distinct, unconnected with each other, as in most plants.

—— *globosa,* globular, as in the genus *Mercurialis.*

—— *hastata,* spear or halbert shaped, as in the genus *Jacquinia.*

—— *hirsuta,* rough with hairs, as in the genera *Lamium* and *Rhinanthus.*

—— *incurva,* s. *incurvata,* crooked, as in the genera *Verbena* and *Bombax.*

—— *linearis,* small and slender like a line, as in the grasses.

—— *lunulata,* crescent-shaped, as in the genera *Fragaria* and *Comarum.*

—— *membranacea,* of a membranaceous texture, as in the genus *Triplaris.*

—— *oblonga,* oblong, much longer than broad, as in *Lilium candidum.*

—— *obtusa,* blunt, as in the genera *Geum* and *Achanthus.*

Anthera *ovata*, egg-shaped, as in the genus *Limeum*.

—— *pellucida*, shining or transparent, as in the genus *Menispermum*.

—— *peltata*, shield-shaped, flat and round, in the form of a shield, as in *Taxus baccata*.

—— *reniformis*, kidney-shaped, as in the genus *Tradescantia*. Anthers of this shape, as well as seeds, are common in the class Monadelphia.

—— *rostrata*, beaked, when formed like the beak of a bird, as in the genus *Osbeckia*.

—— *rotunda*, round, without angles.

—— *subrotunda*, roundish, or a little round, as in the genera *Cerastium*, *Atriplex*, *Phytolacca* and *Phaca*.

—— *subovata*, approaching to the egg-shape, as in the genus *Passerina*.

—— *subulata*, awl-shaped, thick at the base, and narrowing towards the apex, as in the genus *Roellia*.

—— *tetragona*, four-cornered, as in the genera *Cannabis*, *Populus*, and *Dictamnus*.

—— *trigona*, three-cornered, as in the genus *Rosa*.

—— *villosa*, villose, when covered with soft hairs, as in the genus *Acanthus*.

Antheriformis (from *anthera*, an anther, and *forma*, a shape), applied to an organ which has the appearance of an anther.

Anthesis (from ἄνθος, *flos*), a term used to denote expansion, when the corolla is in full blow.

Anthocorinum (from ἄνθος, *flos*, and κόρη ἀ κορέω, *orno*), a club-shaped, coloured, and forked body, sitting horizontally upon the flower-stalk in the *Surubea* of Aubl., as it were riding upon it. In *Ruyschia clusiæfolia* (Jacq. *Amer.*), there is a similar body, but not cleft (De Candolle).

Anthodium (from ἄνθος, *flos*), a term used by Richard to

denote the common calyx, which contains the inflorescence of a compound flower.

Anthracinus (from *ανθραξ, carbo*, coal), a coal-black.

Anthus (from *ανθος, flos*), a term used by Columna, synonymous with the corolla of Linnæus.

Anticus (from *αντι, contra*), when one part is placed before another.

Antrorsum (from *ante*, before), a direction upwards towards the summit.

Apertura (from *aperio*, to open), an aperture or opening which occurs in some species of anthers.

Apetalus (from *à* priv. and *πεταλον, petalum*, a petal), when destitute of a corolla.

Apex (from *απεχω*, to be far from), the point, end, or termination of a leaf, &c.

Aphyllus (from *à* priv. and *φυλλον, folium*, a leaf), a term applied to plants which are destitute of leaves. A stem is termed aphyllous when it is totally devoid of leaves, as in *Lathræa squamaria* and some others. A corolla is aphyllous when it is destitute of a calyx. Linnæus uses the term *nudus*.

Apiculatus (dimin. from *apes*), set with soft distant thorns or prickles.

Apophysis (from *αποφυω, effugio*, to proceed from), an excrescence or fleshy tubercle found at the base of the capsules of mosses.

Apothecium (Gr. *αποθηκη*, from *απο* and *τιθημι, pono*, to reposit), a term used to denote the seed-bud of Lichens, containing twin-seeds.

Appendicula (dimin. from *appendix*), an appendage hanging from the base of the footstalk, but is not essential.

Appendiculatus (from *appendo*, to hang by), appendaged, when there is an additional small leaf at the base of the petiole. Vide Folium.

Appressus (from *ad* and *premo*, to press together), applied to a leaf when the disk appears to be pressed close to the stem, also to a peduncle.

Approximatus (from *ad* and *proximo*, approaching to), applied to leaves which grow near each other; opposite to *remotus*. Vide Folium.

Apyrinus (from *à* priv. and πυρην, *nucleus*, a kernel), a term used by Lud. Gerard in his arrangement, to denote such plants as are destitute of a stone or kernel, or have a very small one. It consists of two genera, the Myrtle and Pomegranate.

Aquaticus (from *aqua*, water), aquatic, a specific name of many plants, indicating that they grow in water, as *Callitriche aquatica*, *Cerastium aquaticum*, &c.

Aqueus (from *aqua*), watery, nearly colourless.

Arachnoideus (from αραχνη, *aranea*, and ειδος, *facies*, likeness), cobwebbed, when covered with a thick pubescence resembling a spider's web. This species of pubescence is distinguished in all parts of a plant, the leaf, peduncle, calyx, &c.

Arbor, a tree, a perennial plant, consisting of a hard woody stem or trunk, which rises to a considerable height, bearing branches on the top which are permanent. Trees are easily distinguished from the herbaceous tribe, whose stems do not remain the winter.

Arboreus (from *arbor*), applied to plants consisting of a woody stem which is permanent.

Arbustum (from *arbos*), a copse of shrubs or trees, an orchard or vineyard.

Arctus (from *arcto*, to straighten), straight, upright.

Arcuatus (from *arcus*, a bow), curved or bent like a bow, applied to a frond, filament, anther, and legume.

Arena (from *arendo*), sand or gravel.

Areola (dimin. from *area*), a small field.

Argenteus (from *argentum*), silvery.

Argilla (from ἀργος, *albus*), a species of clay which is of a white colour.

Aridus (from *areo*), dry, parched.

Arillatus (from *arillus*), applied to a seed which is furnished with a tunic.

Arillus (from *arere*, to be dry or parched), the tunic, discovered by Linnæus to be the exterior coat or covering of a seed, which, when dry, falls off spontaneously. When present it covers the seed either wholly or partially; but all seeds are not furnished with an arillus.

The varieties:

Arillus *cartilagineus*, cartilaginous or gristly, as in the genus *Pyrola*.

——— *chartaceus*, paper-like, having an elasticity for dispersing the seed, as in the genera *Coffea*, *Dictamnus*, &c.

——— *dimidiatus*, dimidiate, when covering the seed only half round, as in *Taxus baccata*.

——— *hirsutus*, hairy, as in *Geranium incanum*.

——— *laceratus*, lacerated, having the appearance of being cut or torn, as in the mace of *Myristica moschata*.

——— *reticulatus*, reticulate, forming a net-work round the seed, as in the genus *Orchis*.

——— *scaber*, rough and knotty, as in *Cynoglossum officinale*.

——— *tricuspidatus*, tricuspid, three-pointed, as in *Malva coromandiliana*.

——— *villosus*, villose, covered with soft hairs, as in *Geranium dissectum*.

Arista (from *areo*, to be dry), an awn, a slender, sharp substance growing on the valves of some grasses: it is freqently called a beard. It is sometimes used to signify a sharp point terminating a leaf, &c.

The different awns are distinguished as

Arista *articulata*, jointed at the base, as in the genus *Stipa*.

—— *dorsalis*, dorsal, when the awn is placed upon the back of the glume, as in *Agrostis canina*, and the genus *Bromus*, &c.

—— *geniculata*, when bent like the knee-joint, as in *Holcus avenaceus*.

—— *nuda*, naked, destitute of every kind of pubescence, as in *Stipa arguens* and *juncea*.

—— *recurvata*, recurved, bent back, as in *Holcus lanatus*.

—— *stricta*, straight, upright, as in *Bromus mollis*.

—— *terminalis*, terminal when fixed on the apex of the glume, as in the genus *Stipa*.

—— *tortilis*, twisted, as in *Aira montana*.

—— *uncinata*, hooked, as in *Panicum hirtellum*.

—— *villosa*, s. *plumosa*, having white villi, which give it the appearance of being feathery, as in *Stipa pennata*.

Aristatus (from *arista*, *ab area*), being awned, as in the glumes of some grasses; also sometimes anthers terminate in awns.

Arma (from *armus*, *à* Gr. ἁρμος, *arms*), a species of armature or offensive weapons serving to protect plants. They are delineated by Linnæus as one of the seven kinds of *Fulcra*, or props. *Arma* is now used as a generic name embracing the terms *aculeus*, *furca*, *spina*, and *stimulus*.

Aromaticus (from ἀρωμα, *aroma*, an odour), having an aromatic flavour, as plants in the genus *Mentha*, &c.

Articulatio (from *articulus*, a joint), a term denoting the space between two joints.

Articulatus (from *articulus*), knotted or jointed. Vide Caulis, Radix, &c.

Articulus (from ἀρθρον, *artus*), a knot, or joint.

Artificialis (from *artifex*, qu. *ars* and *facio*), artificial.

Arvensis (from ἀρόω, *aro*, to plough), a term denominating plants which grow in ploughed fields, as *Myosotis arvensis*, *Veronica arvensis*, &c.

Ascendens (from *ad*, and *scando* to climb), ascending, the lower part being flat, the upper becoming erect. It is applicable either to leaves, stalks, or stems. Vide Folium, &c.

Ascidium (from ἀσκίδιον, a *bladder* or *bottle*), a cylindrical foliaceous appendage in the form of a pitcher, which contains water, and is sometimes furnished with a cover which opens occasionally. It is situated at the extremity of a leaf, and is either sessile or petiolate. The sessile occurs in the genus *Sarracenia*, the petiolate in *Nepenthes distillatoria*. (Willdenow.)

Asexualis (from *à* and *sexus*), bearing buds only.

Asper (from ἄσπερον), rough, the surface being uneven, synonymous with *scaber*.

Asperifolius (from *asper* and *folium*), rough-leaved. Vide Folium.

Assurgens (from *ad* and *surgo*, to rise), first declining and then becoming erect.

Ater, black, coal-black, or brown.

Atro-alba, darkish-white, as in *Lecidea atro-alba*.

Atro-purpureus, blackish-red.

Atro-virens, darkish-green, as in *Lecidea atro-virens*.

Attenuatus (from *ad* and *tenuo*, to make thin), attenuate, or wasted, applied to a footstalk which gradually grows smaller towards the flower.

Auctus (from *augeor*), increased, applied to a calyx having a row of leaves distinct from the flower-cup surrounding the base. Vide Calyx.

Aurantiacus (from *aurantium*, an orange), a deep yellow colour passing into a red, as in *Hieracium aurantiacum*.

Aurantium (*ab aureo colore*, so called from its golden colour, or from *Arantium*, a town in Achaia), an orange,

a peculiar fleshy fruit, which can be divided into several membranous compartments; the seeds are placed in the interior.

Aureus (from *aurum*, gold), a golden-yellow colour.

Auricula (dimin. from *auris*), the ear, a small leaf placed upon the leaf-stalk.

Auriculatus (from *auris*), eared, applied to a leaf which has a pair of leaflets attached to the base of the foot-stalk, which are distinct from the leaf, or occasionally sometimes joined, as in *Citrus Aurantium*.

Auriformis (from *auris* and *forma*), ear-shaped.

Autumnalis (from *autumnus*), belonging to the autumn, a specific name to many autumnal plants, as *Apargia autumnalis, Colchicum autumnale*, &c.

Avenius (from *à* priv. and *vena*, a vein), veinless, having no visible veins.

Axilla (from ἄξων, *axis*, the axle), a term used for the angle which a leaf or leafstalk forms at its insertion into the stem or branch.

Axillaris (from *axilla*), growing from the angle of the stem or leaf, as is observed in *Carex axillaris*.

Axipendulus (from *axis*, the axle, and *pendeo*, to suspend), a term applied to the proper receptacle attached to the calyx.

Axis (from ἄξων, the *axle*), an imaginary line proceeding from the base to the apex.

Azureus (from Fr. *azur*), a sky-blue.

B

Bacca (from βακχος, *Bacchus*), a berry, a seed-vessel without valves, which encloses several naked seeds, connected by a slender membrane into cells, and dispersed through pulp. It is either simple or compound, and has different forms and consistencies, which are explained in the following terms, viz.

Bacca *bilocularis*, bilocular, when the berry consists of two cells, as in the genus *Lonicera*.

—— *bisperma*, s. *disperma*, when it contains two seeds, as in *Barbarea vulgaris*.

—— *composita*, compound, consisting of several single ones united together, each containing a seed, as in *Rubus idœus*,

—— *corticosa*, when covered with a hard rind, so that it cannot be pressed. This might be taken for a capsule, but it does not burst, and is filled with a juicy substance in which the seeds are imbedded: it is exemplified in *Garcinia Mangostana*.

—— *dicocca*, double, as in the genus *Jasminum*.

—— *exsicca*, dry, when covered with a coriaceous or leathery skin, as in *Hedera Helix*.

—— *monosperma*, when it contains only one seed, as in the genera *Daphne*, *Viscum*, and *Viburnum*.

—— *multilocularis*, having many cells, as in the genus *Nymphœa*.

—— *oblonga*, oblong, as in *Barbarea vulgaris*.

—— *polysperma*, having many seeds, as in *Arbutus unedo*, the genus *Ribes*, &c.

—— *quadrilocularis*, consisting of four cells, as in *Paris quadrifolia*.

—— *quadrisperma*, having four seeds, as in the genera *Ligustrum* and *Ilex*.

—— *quinquelocularis*, consisting of five cells, as in *Muntingia Calabura*.

—— *rotunda*, round, as in *Ribes rubrum*.

—— *spuria*, a false or spurious berry, is composed of a soft pulp placed upon the receptacle, with the seeds appearing on the outside (contrary to *acini*), as is exemplified in the genus *Fragaria*.

—— *succosa*, juicy, when it consists of a soft pulpy substance, as in *Ribes Grossularia*.

Bacca *trilocularis*, when it has three cells, as in the genera *Asparagus* and *Ruscus*.

—— *trisperma*, when it contains three seeds, as in the genus *Sambucus*.

—— *unilocularis*, when there is but one cell, as in the genera *Actæa* and *Cactus*.

Bacciferus (from *bacca*, a berry, and *fero*, to bear), berry-bearing, as in *Rhamnus Frangula*, &c.

Badius, chesnut-brown.

Barba (from βαρβαρος, barbarus), a beard, a species of pubescence which occurs in patches on the surface of some plants, as is exemplified in the leaves of *Mesembryanthemum barbatum*.

Barbatus (from *barba*), bearded, having a bunch of strong hairs terminating the leaves. This character also appears in a Personate or Ringent corolla. Vide Corolla.

Basilaris (from βασιλευς, *rex*, a king). This term is used when an organ is inserted on the base of another.

Basis (from βαινω, *eo*, to go), the base of an organ; refers to the point by which it is inserted, and through which it derives its nourishment.

Bedeguar (from Arab. *bedegh*, contaminated), a disease occurring among Roses, occasioned by insects depositing their eggs in the centre of the bud.

Berillus (from βηρυλλος), a mixture of blue and ash-grey.

Bicapsularis (from *bis*, twice, and *capsula*, a capsule), a plant having two capsules to each flower, as those in the genus *Pæonia*.

Bicolor (from *bis* and *color*, a colour), applied to a corolla having two colours.

Bicornes (from *bis* and *cornu*, a horn), a term applied to plants having anthers which have the appearance of two horns. Vide Anthera.

Bidentatus (from *bis* and *dens*, a tooth), two-toothed.

Biennis (from *bis* and *annus*, a year); biennial plants or

roots are those which continue alive two years, as *Heracleum Sphondylium, Apium graveolens, Petroselinum,* &c. The sign is ♂.

Bifariam. This character alludes to leaves pointing from opposite sides, or to a stem having a line of hairs on each side pointing in opposite directions, the latter of which is exemplified in *Veronica Chamædrys.*

Biferus (from *bis* and *fero,* to bear), plants flowering twice a-year.

Bifidus (from *bis* and *fissus,* a cleft), applied to a leaf, calyx, corolla, or stipule, having two longitudinal sinuses extending but a short way down.

Biflorus (from *bis* and *flos,* a flower), bearing two flowers. Vide Pedunculus.

Biforus (from *bis* and *forus,* a door), two-doored. Plants which are furnished with a two-valved pericarp are called *bifora.*

Bigeminus (from *bis* and *gemini,* twins), twice paired. Vide Folium.

Bijugus (from *bis* and *jugum,* a yoke), applied to a winged leaf, which bears two pair of leaflets. Vide Folium.

Bilabiatus (from *bis* and *labium,* a lip), applied to a corolla which has two lips. Vide Corolla.

Bilamellatus (from *bis* and *lamina,* a plate), a flatted sphere, longitudinally two-cleft.

Bilobus (from *bis* and *lobus,* the end of the ear), consisting of two lobes. Vide Folium.

Bilocularis (from *bis* and *loculus,* a little cell), applied to a capsule having two loculaments or cells. Vide Capsula.

Bimestris (from *bis* and *mensis,* a month), in duration of two months.

Bimi (from *bis*), applied to leaves and shoots of two years' continuance.

Bina (from *bis*), two together.

Binatus (from *binus*), binate, paired. Vide Folium.

Binervus (from *bis* and *nervus*, a nerve), two-nerved. Vide Folium.

Bipartitus (from *bis* and *pars*, a part), deeply divided into two segments. Vide Folium.

Bipinnatifidus (from *bis* and *pinna*), doubly pinnatifid, applied to a leaf which has its segments again divided, so as to constitute almost a feathery appearance. Vide Folium.

Bipinnatus (from *bis* and *pinna*, a wing), doubly winged, when the leaflets of a pinnate leaf are again pinnate. Vide Folium.

Biseriales (from *bis* and *series*, a row), having two rows alternately long and short, as in the gills of the order *Fungi*.

Bivalvis (from *bis* and *valva*), a capsule having two valves, or a valve opening on both sides.

Bivascularis (from *bis* and *vasculum*, a little vessel), plants which have a single capsule divided into two cells, as in *Hyoscyamus niger*, *Nicotiana Tabacum*, *Datura Stramonium*, &c.

Blastus (from *βλαπτω*, *lædo*, to hurt), blighted.

Brachiatus (from *βραχιων*, *brachium*, the arm), a measure the length of the arm from the shoulder to the wrist.

Bractea, the floral leaf; a species of *fulcrum* situated immediately under the flower, differing either in form or colour from the other leaves. The various *bracteæ* are either green or coloured, caducous, deciduous, or persisting, one, two, or many, viz.

Bracteæ *caducæ*, caducous, falling off before the flowers, as in many plants.

—— *coloratæ*, coloured, as in the *Salvia Horminum*, also *Melampyrum arvense*, &c.

—— *deciduæ*, deciduous.

Bracteæ *persistentes*, remaining, as in most plants which have them.

Bracteatus (from *bractea*), applied to a plant which has *bracteæ* or floral leaves. The *coma bracteata* is when a stem is terminated with *bracteæ* in the form of a tuft, as in *Fritillaria imperialis*.

Brevis, short, applied to an organ not so long as the leaf.

Brevissimus (sup. of *brevis*), very short.

Brumales (from *bruma*, winter), a term applied to plants which flower in the winter, as *Helleborus niger*, *Tussilago odorata*, &c.

Brunneus, a brown colour.

Bulbiferus (from *bulbus* and *fero*, to bear), bulb-bearing, applied to a stem producing bulbs. Vide Caulis.

Bulbosus (from *bulbus*, a bulb), which is either scaly, coated, solid, or jointed.

Bulbus (from βολβος). A bulb may be considered as a bud placed upon the root. It contains the rudiments or embryo of a future plant. Bulbs are sometimes found upon the stem, as in some species of the genus *Allium* and *Lilium*, &c.

The following are the different kinds of bulbs, viz.

Bulbus *articulatus*, a knotted or jointed bulb; is composed of several lamellæ or plates, which are closely linked together, as in the genera *Lathræa*, *Adoxa*, and *Martynia*.

—— *caulinus*, a bulb seated upon the stem or stalk; which mode of propagation is beautifully exemplified in the *Lilium Tigrinum*, also in the genus *Ornithogalum* and several others.

—— *duplicatus*, consists of two solid bulb connected together, as in *Fritillaria* and some species of *Orchis*. This kind of bulbous root is also called *testiculatus* from its having twin roots.

—— *granulatus*, a granulated bulb, is so named from its

appearance being that of a small globular body or grain. It is found usually associated with many others, studding as it were the root to which they are fixed, as is beautifully exemplified in *Saxifraga granulata.*

Bulbus *solidus,* a solid bulb is a mass of cellular substance filled with nutritious fluids, and enclosed within a thin epidermis, with vessels running through it from the base to the apex. It is covered with one or more coats, either of a membranous, fibrous, or a reticulated texture, as in the genus *Tulipa,* &c.

—— *squamosus,* a squamous bulb, consists of fleshy scales attached to a radical plate, and so arranged as to lie over each other like the tiles of a roof. It is perfectly exemplified in the Lily tribe.

—— *tunicatus,* a coated bulb, consists of several tunics or coats closely embracing or enfolding each other, as in the genus *Allium.*

Bullatus (from *bulla,* a bubble or blister), blistered; the surface of a leaf rising above the veins, so as to form a blistery appearance. Vide Folium.

Byssaceus (from *βυσσος*), a species of pubescence occurring on the surface of some plants, which has the appearance of velvet, as in the *Stachys mollissima,* &c.

C

Caducus (from *cado,* to fall), a term applied to the calyx when it falls off before the expansion of the corolla. Vide Calyx.

Cæsius (*de calore cæli,* qu. *cælius*), pale blue or lavender colour; also a specific name of a plant, as in *Rubus cæsius,* &c.

Cæspitosus (from *cæspes,* turf), turf-like, stems or branches growing so as to be matted together. Vide Caulis.

Calcar (from *calx,* the heel, *à caleo,* to heat), a spur.

Calcaratus (from *calcar,* a spur), spur-shaped. This cha-

racter is observed in the nectary of some of the Orchideous plants, and in many instances it produces honey. Vide Nectarium.

Callosus (from *callus*), a hard granular substance upon the surface of the leaf or stem. Vide Folium, &c.

Calyculatus (from *calyculus*, a little calyx), calyculate, applied to a perianth which has a row of leaves surrounding its base. Vide Calyx.

Calyculus (dimin. from *calyx*), the outer calyx, the proper cover, or crown of the seed.—The following are the varieties:

Calyculus *aristatus*, aristate, when there are awns at the top, as in *Bidens tripartita*.

—— *cristatus*, crested, when there is a dentate or incised membrane on the top of the seed, as in *Hedysarum crista galli*.

—— *cornutus*, horned, the rostrum being bent, as in *Nigella damascena*.

—— *integer*, when the margin is perfect and entire, as in *Tanacetum vulgare*.

—— *paleaceus*, when there are chaffy scales, as in *Helianthus annuus*.

—— *rostratus*, beaked, when the style of the germen is remaining, as in the genus *Sinapis*.

Calyptra (from καλυπτω, *to cover*), a veil covering the seed-vessel of mosses. It is variously shaped in various species; sometimes the surface is either even, striate, sulcate, smooth, or hairy.—The following are the varieties, viz.

Calyptra *acuminata*, ending in a sharp point, as in *Encalyptra ciliata*.

—— *circumscissa*, opening transversely, as in the genus *Sphagnum*.

—— *dentata*, toothed at the margin, as in the genus *Encalyptra*.

Calyptra *dimidiata*, dimidiate, or halved, when there is a slit passing up one side, as in the genera *Gymnostomum*, *Tortula*, *Hypnum*, &c.

—— *integra*, entire, the margin not being dentated, as in the genus *Gymnostomum*.

—— *glabra*, smooth, glabrous, as in the genus *Encalypta*.

—— *lævis*, even, having no striæ, as in *Neckera*.

—— *quadrangula*, four-angled, as in the genus *Fumaria*.

—— *mitriformis*, s. *cylindracea*, when in the form of a bishop's mitre, cylindrical, as in the genera *Grimmia*, *Anictangium*, *Orthotrichum*, &c.

—— *subulata*, awl-shaped, as in the genus *Mnium*.

—— *sulcata*, furrowed, as in the genus *Orthotrichum*.

—— *villosa*, when covered with short hairs, as in *Polytrichum commune*.

Calyptratus (from *calyptra*, a cover, or veil), being covered with a calyptra, as in the Mosses, but in some it is wanting.

Calyx (from καλξ ἀ καλυπτω, *to cover*), the flower-cup; is sometimes called the Empalement. It has been supposed to be a continuation of the outer bark of a plant, constituting a part of the flower. It is not an essential appendage, for in many plants it is wanting, as in all Liliaceous plants. When present it forms the outer covering of the corolla.

According to Linnæus, there are seven species of calyces, viz.

Amentum, a catkin, as in the genus *Corylus*.

Calyptra, the covering of the Mosses.

Gluma, the husk of the Grasses.

Involucrum, a species of calyx in umbelliferous plants, as in *Daucus Carota*.

Perianthium, the flower-cup, as in the genus *Primula*, &c.

Spatha, a sheath, as in the genus *Narcissus*.

Volva, a wrapper, as in several of the tribe of *Fungi*.

The different varieties of calyces are the following, viz.

Calyx *abbreviatus*, abbreviate, shorter than the tube of the corolla, as in *Lithospermum maritimum*.

—— *acuminatus*, ending in a sharp point, as in the genus *Itea*, &c.

—— *auctus*, an increased calyx, a perianthium which has a row of leaves, distinct from the flower-cup surrounding the base, as in the genus *Dianthus*.

—— *bifidus*, two-cleft.

—— *caducus*, falling off before the expansion of the flower, as in *Papaver somniferum*.

—— *calyculatus*, when surrounded on the outer side by a smaller calyx, as in the genera *Dianthus*, *Coreopsis*, *Bidens*, &c.

—— *clavatus*, club-shaped, growing thicker towards the top, as in the genus *Silene*.

—— *coloratus*, coloured, when of any other colour than green.

—— *communis*, a common calyx, which contains the florets of an aggregate or compound flower, as in the class Syngenesia.

—— *deciduus*, falling off immediately on the expansion of the corolla, as in *Tilia europæa*, and the flowers of the class Tetradynamia.

—— *diphyllus*, a calyx with two leaves, as in the genus *Fumaria*.

—— *imbricatus*, imbricated, when covered with scales lying over one another like tiles on a roof, as in the genera *Hieracium*, *Sonchus*, &c.

—— *inflatus*, blown up like a bladder, as in the genus *Physalis*.

—— *integer*, an entire calyx, as in the genus *Genipa*.

—— *labiatus*, labiate, when divided into two laciniæ, as in *Salvia officinalis*.

Calyx *longus*, longer than the tube of the corolla.
—— *marcescens*, withering after the flower, but not falling off, as in *Prunus Armeniaca*.
—— *mediocris*, the length of the tube of the corolla.
—— *monophyllus*, a calyx having only one leaf.
—— *muricatus*, when armed with sharp prickles, as in *Crepis biennis*.
—— *partitus*, divided to the base.
—— *persistens*, remaining after the corolla has fallen off, as in *Hyoscyamus niger*.
—— *polyphyllus*, a calyx which consists of many leaves, as in the genera *Tussilago* and *Cineraria*.
—— *proprius*; the proper calyx is that which belongs to a single flower.
—— *quadrifidus*, four-cleft, as in *Grona repens*.
—— *quinquifidus*, five-cleft, as in the genus *Scorpiurus*.
—— *scariosus*, scarious, when the leaflets are composed of hard and dry scales, as in the genus *Centaurea*.
—— *serratus*, serrated, as in the genus *Hypericum*.
—— *sexfidus*, six-cleft.
—— *simplex*, simple, when the flowers are surrounded by a single row of leaves, as in *Tragopogon pratense*.
—— *spinosus*, when a leaflet is furnished with a thorn at the apex, as in *Onopordum Acanthium*.
—— *squarrosus*, scurfy, when the leaflets are bent back and spreading, as in the genus *Carduus*.
—— *trifidus*, three-cleft.
—— *triphyllus*, a calyx with three leaves.
—— *tubulatus*, having the form of a tube, as in the class Didynamia.
—— *turbinatus*, turbinate, in the form of a top, as in the genus *Grislea*.
—— *univalvis*, consisting of one valve, as in *Lolium perenne*.

Calyx *ventricosus*, bellied out, as in the genera *Carlina*, *Carduus*, *Cnicus*, &c.

Campanulatus (from *campanula*, a little bell), applied to a flower which is bell-shaped. Vide Corolla.

Campester (from *campus*), of or belonging to the plain fields; frequently the trivial name of a plant, as *Gentiana campestris*, *Luciola campestris*, &c.

Canaliculatus (dimin. from *canalis*, a channel), applied to a leaf having a deep channel running from the base to the apex. Vide Folium.

Cancellatus (from *cancelli*), applied to a seed having longitudinal streaks decussating each other, so as to form lattice-work. Vide Semen.

Candidus (from *candeo*, to shine), a bright shining white colour, as in *Lilium candidum*.

Canus, white, passing into grey, and becoming hoary.

Capillaceus (from *capillus*, a hair), having the nature and consistence of hairs. Vide Folium.

Capillaris (from *capillus*), capillary, or hair-like. Vide Pappus.

Capillitium (from *capillus*), a tuft of hairs found on the sporæ of the *Fungi*.

Capitatus (from *caput*, the head), when flowers are collected into a head. Vide Flos.

Capituliformis (from *caput* and *forma*), in the shape of a head, as in the flowers of *Budlea globosa*.

Capitulum (dimin. from *caput*), a knob, or little head of flowers; a species of inflorescence wherein flowers are connected into close heads upon the top of the peduncles, as in the genus *Gomphrena*.

Capreolatus (from *capreolus*, a tendril), tendril-bearing.

Capreolus (dimin. from *caprea*, a tendril), used by Varro for a branch which produces tendrils; the same as *Cirrus*.

Caprificatio (from *caprificus*, a wild fig), a term expres-

sive of the manner in which the ancients used to promote the fecundity of their fig-trees, and ensure the maturation of the fruit,

Capsula (dimin. from *capsa*, a chest or case). A capsule is a dry hollow seed-vessel, which opens naturally in some determinate manner. It is of a woody, coriaceous, or membranaceous texture, generally divided into valves. Internally it is composed of one or more dissepiments and loculaments. There is also a central column (which is called *columella*), to which the seeds are usually attached, as is exemplified in *Datura Stramonium*.

The various capsules are distinguished under the following terms, viz.

Capsula *acuminata*, acuminate, tapering to a point, as in the *Syringa vulgaris*.

—— *alata*, winged, as in the genus *Acer*.

—— *articulata*, jointed.

—— *bicarinata*, having two prominences like the keel of a ship, as in *Helleborus niger* and *Caltha palustris*.

—— *bicornis* resembling two horns.

—— *bilocularis*, having two cells, as in the genera *Hyoscyamus*, *Verbascum*, *Chironia*, &c.

—— *bisulca*, furnished with two furrows, as in the genus *Budlea*.

—— *bivalvis*, two-valved, or a valve opening two ways, as in Diadelphous plants.

—— *carnosa*, fleshy, or pulpy, as in the genus *Pontederia*.

—— *circumscissa*, a capsule cut transversely, as in the genus *Anagallis*, &c.

—— *colorata*, coloured, as in the genus *Celastrus*.

—— *columnaris*, pillar-shaped, as in the genus *Limodorum*.

—— *compressa*, flat, pressed together, as in the genera *Crassula* and *Alisma*.

Capsula *conica*, in the form of a cone, as in *Pontederia cordata*.

—— *cordata*, heart-shaped, as in *Peplis Portula*.

—— *coriacea*, of a leathery substance, as in the genus *Cupania*.

—— *coronata*, crowned with the calyx, as in most plants which have the seed-bud placed below the receptacle of the flower.

—— *dicocca*, having two cells, each containing a single seed, as in *Solandra grandiflora*.

—— *disperma*, two-seeded, as *Buffonia tenuifolia*.

—— *elastica*, bursting with great force, so as to spread its seeds at a distance, as in the genera *Lathræa*, *Dictamnus*, &c.

—— *emarginata*, when deficient in the margin.

—— *farinacea*, having a mealy pulp, as in *Adansonia digitata*.

—— *flaccida*, feeble, as in the genera *Staphylea* and *Scheuchzeria*.

—— *glabra*, having a smooth even surface, as in the genera *Scilla* and *Anthericum*.

—— *globosa*, round, of a globular form, as in the genus *Utricularia*.

—— *hispida*, shaggy or bristly, as in the genus *Circæa*.

—— *inflata*, blown up, or swelled out, like a bladder, as in *Silene inflata*.

—— *lanceolata*, tapering towards each extremity like a lance, as in the genus *Hæmatoxylum*.

—— *lignosa*, being of the substance of wood, as in *Cedrela odorata*.

—— *lunulata*, in the form of a crescent, as in *Isopyrum Fumarioides*.

—— *monosperma*, containing only one seed, as in the genus *Herniaria*.

Capsula *multilocularis*, having many cells, as in *Hura crepitans*.

—— *multivalvis*, having many valves.

—— *muricata*, prickly, as in *Crepis biennis*.

—— *nuda*, naked, in opposition to hispid, as in the genus *Commelina*.

—— *obcordata*, obcordate, the heart-shape reversed, as in the genus *Veronica*.

—— *oblonga*, oblong, much longer than broad, as in the genus *Iris*.

—— *ovata*, egg-shaped, as in *Silene inflata*.

—— *pellucida*, thin and transparent, as in the *Gloriosa superba*.

—— *pentacocca*, a capsule with five cells, each containing a seed.

—— *polysperma*, many-seeded, as in the genus *Papaver*.

—— *quadrivalvis*, having four valves, as in *Datura Stramonium*.

—— *quinquelocularis*, having five cells, as in *Azalea procumbens*.

—— *scabra*, rough and knotted, as in the genus *Canna*.

—— *scrotiformis*, purse-shaped, as in *Thlaspi Bursa-Pastoris*.

—— *semivalvis*, having only half a valve, as in *Argemone Mexicana*.

—— *spinosa*, thorny, as in *Datura Stramonium*.

—— *striata*, striated or streaked, as in the genus *Epilobium*.

—— *succulenta*, succulent and juicy, as in *Euonymus europæus*.

—— *teres*, slender and cylindrical, as in the genera *Primula* and *Soldanella*.

—— *tomentosa*, downy or cottony, as in the genus *Pæonia*.

—— *tricarinata*, having three keels, as in the genus *Satyrium*, and several other genera in the class Gynandria.

Capsula *tricocca*, a capsule with three cells, each containing a seed, as in the genus *Euphorbia*.

—— *trigona*, three-cornered, as in the genus *Maranta*.

—— *trilocularis*, having three cells, as in *Æsculus Hippocastanum*.

—— *trisperma*, three-seeded, as in the genus *Hudsonia*.

—— *trisulca*, having three furrows, as in *Canna Indica* and the genus *Morea*.

—— *turbinata*, shaped like a turban or a boy's top, as in *Montia fontana*.

—— *unilocularis*, when there is no partition, as in *Parnassia palustris* and the genus *Agrostemma*.

—— *ventricosa*, bellied, as in the *Gladiolus communis*.

Capsularis (from *capsa*, a case), capsular, pertaining to a capsule.

Carina (from *carino*, to make low), the keel; the lower petal of a papilionaceous corolla, which takes its name from the resemblance to the keel of a ship. It encloses the stamen and pistil, and consists of either one petal, as in the genus *Cytisus*, or two adhering closely together, as in the genus *Spartium*. The carina is either

Bifida, slightly cut in two, as in the *Aspalathus*;

Compressa, flat, pressed together at the sides, as in the genera *Robinia* and *Polygala*.

Incurva, turning back, as in *Arachis hypogœa*.

Lunulata, crescent-shaped, as in *Piscidia Erythrina*.

Spiralis, twisted spirally, as in the genus *Phaseolus*.

Ventricosa, bellied out in the middle, as in the genera *Pisum*, *Lathyrus*, &c.

The lower part of the base of the keel extends into a claw, which is inserted into the receptacle, and is of the same length as the calyx.

Carinatus (from *carina*), applied to a leaf which resembles the keel of a ship. Vide Folium.

Carneus, of a flesh colour, as in the stem of *Erythrina carnea*.

Carnosus, applied to a leaf which has a fleshy appearance. Vide Folium.

Carpidium (from καρπος, *fructus*, fruit), a term used when the fruits of several flowers are aggregated into one common fruit, as in the genus *Morosus*.

Cartilagineus (from *cartilago*, gristle), cartilaginous, an inferior degree of hardness, but which still allows the parts to be separated with difficulty, as in the margins of leaves, and the albuminous parts of seeds.

Caryophyllæus (from *caryophyllus*), a name given by Tournefort to the clove-gillyflower, or carnation-pink. This term includes all those flowers which bear resemblance to a carnation in every part of the corolla.

Castaneus, chesnut-coloured, as in *Juncus castaneus*.

Catenulæ (dimin. from *catena*, a chain), small chains which are attached to the seeds of the *Jungermanniæ*, *Marchantiæ*, and *Targionia hypophylla*.

Catulus, the catkin of ancient authors. Vide *Amentum*.

Cauda (from *cado*, to fall), a tail is an elongated generally feathery appendage attached to some seeds, which is formed of the permanent style, as is exemplified in the genus *Clematis*.

Caudex, the stem or trunk, particularly applied to a tree, part of which ascends and becomes the trunk, and part descends and becomes the root.

Caudex *ascendens*; the ascending stem is that part which forms the trunk of the tree.

—— *descendens*; the descending stem is that part which forms the root.

—— *intermedius*; the intermediate stem is that part which is between the root and the branches.

Caudiculum (dimin. from *cauda*), a little tail.

Caulescens, having a stem; opposed to *acaulis*, stemless.

Caulinus, when applied to a leaf it signifies growing upon the stem; to a peduncle, springing from the stem. It

is also applied to a bulb which is produced upon the stem. Vide Folium.

Caulis (from καυλος), the stem or stalk which elevates the leaves, flowers, or fruit. A stem is either simple, such as is not divided, or compound, which is subdivided into small branches. There are various kinds, viz.

Caulis *aculeatus*, prickly, when it is covered with sharp pointed bodies, which separate with the epidermis, as in the genus *Rosa*.

—— *acutè-angulatus*, acutely angled, when the angles are sharp, and the sides hollow.

—— *alatus*, winged, when the edges or angles are longitudinally expanded into leaf-like borders, as in *Lathyrus latifolius*, &c.

—— *alternatè-ramosus*, alternately branched, as in *Polygonum minus* and *Dianthus deltoides*.

—— *angulatus*, when the stem has several acute angles.

—— *angulosus*, angular, implies that the angles are very obtuse.

—— *aphyllus*, leafless, when it is altogether destitute of leaves, as in *Cuscuta europæa*.

—— *articulatus*, articulated, when it is composed of joints, or apparently of distinct pieces united at their ends, as is frequent in the genus *Cactus*.

—— *ascendens*, when its lower portion forms a curve, the convexity of which is towards the earth, or rests upon it, and the summit rises perpendicularly, as in *Panicum sanguinale*, *Trifolium pratense*, *Carex dioica*, &c.

—— *bifariam*, in two rows, as the hairs on the stem in *Veronica Chamædrys*.

—— *brachiatus*, branched in four opposite directions, as in *Syringa vulgaris*.

—— *bulbiferus*, bulb-bearing, when it is studded with bulbs in the axillæ of the leaves, as in *Cardamine bulbifera*, *Saxifraga cernua*, *Lilium Tigrinum*, &c.

Caulis *cernuus*, when near the summit only, it takes a direction more or less towards the horizon, the lower portion being quite erect, as in *Pinus Cedrus, Convallaria Polygonum*, &c.

—— *cirriferus*, tendril-bearing, when it bears tendrils, as in the genera *Vitis* and *Passiflora*, &c.

—— *compositus*, a compound stem, when it divides into several unequal branches.

—— *compressus*, compressed, when it has two flat surfaces meeting in projecting angles, as in *Poa compressa*.

—— *cylindraceus*. Vide Teres.

—— *debilis*, when it is weak and feeble, and not able to support itself.

—— *declinatus*, when the lower part of the stem rises obliquely from the ground, but the upper bends towards it, forming an arch, as in *Pancratium declinatum*.

—— *decumbens*, is a term applied to a stem, when it rises a little upright at its base, but has its upper portion bent down towards the ground, so that the greater part of it is procumbent.

—— *determinatè-ramosus*, abruptly branched, when each branch, after terminating in flowers, produces a number of fresh shoots, in a circular order, just below the origin of those flowers, as in *Azalea nudiflora*, and many of the Cape heaths.

—— *dextrorsùm*. Vide Volubilis.

—— *dichotomus*, a forked stem, when the divisions and subdivisions are throughout in alternate trifurcations, as in *Fedia olitoria Euphorbia Peplus, Mirabilis dichotoma*, &c.

—— *diffusus*, loosely spreading, as in *Cakile maritima* and *Sedum acre*.

Caulis *distichus*, two ranked, when the branches are spread in two horizontal directions, as in *Pinus Picea*.

—— *erectus*, an upright stem, when its position forms nearly a right angle with the surface of the soil from which it rises, provided that the surface be almost parallel to the horizon. There are varieties of the erect stem, viz. *caulis strictus, flexuosus, tortuosus*, and *cernuus*.

—— *extipulatus*, when it is not furnished with stipulæ.

—— *farinosus*, mealy, when covered with a powder like meal, as in *Primula farinosa*.

—— *fistulosus*, when internally hollow, as in *Allium fistulosum, Cepa*, &c.

—— *flagelliformis*, when long and pliant, as in *Jasminum officinale*.

—— *flexuosus*, when it is naturally a zig-zag, so as to form alternate obtuse angles from right to left, and from left to right, as in *Smilax aspera, Statice reticulata, Aristolochia Clematitis*, &c.

—— *foliatus*. Vide Foliosus.

—— *foliosus*, leafy, when it is furnished with leaves from the base to the apex, as in *Antirrhinum Linaria*.

—— *fulcratus*, when furnished with fulcræ which support the stem, as in *Rhizophora Mangle*.

—— *furcatus*. Vide Dichotomus.

—— *geniculatus*, bent like the knee, when an articulated stem is more or less bent at each joint, as in *Alopecurus geniculatus, Elymus geniculatus*, &c.

—— *glaber*, smooth, when it is free from all kinds of roughness or hairiness, as in *Vinca major, Euphorbia Peplus*, &c.

—— *glaucus*, glaucous, when the dust or bloom upon the stem is of a bluish or sea-green colour, as in the genus *Brassica*, &c.

Caulis *glutinosus*, when the exudation is adhesive, as in *Primula glutinosa*.

—— *hexagonus*, six-cornered, when there are six obtuse angles, as in *Cactus hexagonus*.

—— *heptagonus*, seven-cornered, when there are seven obtuse angles, as in *Cactus heptagonus*.

—— *hispidus*, hispid, when the hairs are stiff or bristly, as in *Borago officinalis, Echium vulgare, &c.*

—— *humifusus*. Vide Procumbens.

—— *incanus*, hoary, when the entire surface is strewed over with a fine white dust, which is easily rubbed off, as in *Draba incana*, and *Atriplex portulacoides*.

—— *incurvus*, when the stem rises, and bends obliquely from the ground, as in *declinatus*, but with the apex bent inwards; as in *Rubus fruticosus*.

—— *inermis*, unarmed, when devoid of spines or prickles.

—— *inflexus*. Vide Incurvus.

—— *lanatus*, woolly, when the fine hairs are long and matted, but easily distinguished from each other, as in *Stachys lanata, Ballota lanata, Salix lanata, &c.*

—— *lævis*, even, when throughout it is perfectly free from inequalities, as in *Papaver somniferum*.

—— *lucidus*, shining, when it has a shining appearance, as if varnished, as in *Geranium lucidum*.

—— *laxus*. Vide Diffusus.

—— *maculatus*, spotted, when it is marked with spots, as in *Conium maculatum*.

—— *maculosus*. Vide Maculatus.

—— *multangulatus*. Vide Polygonus.

—— *nitidus*. Vide Lucidus.

—— *nudus*, when the epidermis is perfectly free from appendages of every description, leaves, scales, spines, prickles, or any kind of pubescence.

—— *nutans*. Vide Cernuus.

—— *obliquus*, is the term employed to designate the ele-

vation of a stem, the direction of which is diagonal to the plane of the horizon.

Caulis *obtusè-angulatus*, obtusely angled, when the angles are rounded, and the side flat.

—— *papillosus*, pimpled, when the roughness depends on small vesicles of the epidermis, containing a watery fluid, which gives the plant the appearance as if it were covered with ice, as in *Mesembryanthemum crystallinum*.

—— *pentagonus*, five-cornered, when there are five obtuse angles. In this instance, the corners are sometimes bordered, and the intervals occasionally furrowed, as in *Cactus pentagonus*.

—— *perfoliatus*, perfoliated, when the stem passes through each leaf, as in *Bupleurum rotundifolium*, *Chlora perfoliata*, *&c.*

—— *perpendicularis*. Vide Erectus.

—— *pilosus*, hairy, when the pubescence consists of rather long separate hairs, as in *Salvia pratensis*, *Myosurus minimus*, *Hieracium Pilosella*, *&c.*

—— *polygonus*, many-cornered, when the angles are numerous and obtuse, as in *Cactus peruvianus*.

—— *procumbens*, implies, that the stem being too weak to support itself, lies flat on the ground, as in *Anagallis arvensis*, *Arbutus Uva-ursi*, *&c.*

—— *prolifer*, proliferous, shooting out new branches from the summit of the former ones, as in *Pinus sylvestris*, *&c.*

—— *prostratus*. Vide Procumbens.

—— *pruinosus*. Vide Incanus.

—— *pubescens*, pubescent, when it is studded or covered with hair-like appendages, as in some species of *Protea*.

—— *punctatus*, punctured, when it is covered with small yet visible perforations, either simple, or surrounded

at the orifice with a raised border, as in *Hypericum perforatum.*

Caulis *quadrangulatus.* Vide Tetragonus.

—— *quadrifariam,* when the hairs on the stem are placed in four rows.

—— *quinquangulatus.* Vide Pentagonus.

—— *radicans,* when it sends forth from one side short, fleshy, root-like fibres, by means of which the plant elevates itself on the perpendicular surfaces of walls and rocks, as *Hedera helix.*

—— *ramentaceus,* ramentaceous, when there are small loose scales upon the stem, as is seen in the *Erica ramentacea.*

—— *ramosissimus,* when not only the greater divisions but these are again divided and subdivided without order, as in the *Ulmus campestris, Ribes grossularia, &c.*

—— *ramosus,* when a stem is divided into lateral branches.

—— *reclinatus.* Vide Declinatus.

—— *rectilineus.* Vide Strictus.

—— *rectus.* Vide Strictus.

—— *repens,* denotes that the stem extends horizontally, or on the surface of the ground, and sends out roots from below, as in *Vinca minor, Glechoma hederacea, &c.*

—— *sarmentosus,* trailing, as in *Fragaria vesca, &c.*

—— *scaber,* scabrous, when it is thickly covered with *papillæ,* which are not visible, but can be felt on running the finger along it, as in *Centaurea nigra.*

—— *scandens,* when it is furnished with tendrils that twine round the branches and twigs of upright plants, and are thus enabled to elevate their foliage and fructification, as in *Solanum dulcamara, Bryonia dioica,* and *Tamus communis.*

—— *semi-teres,* half-round, round on the one side, and flat on the other, as in the *Allium vineale.*

Caulis *septangulatus*. Vide Heptagonus.

—— *sericeus*, silky, when the hairs are shining, and so arranged as to give the appearance of being covered with silk, as in *Hypnum sericeum*.

—— *setaceosus*, bristly, when its armature consists of minute bristles, divaricating from the points whence they are given off, as in *Cactus flagelliformis*.

—— *sexangulatus*. Vide Hexagonus.

—— *simplex*, consists of one piece only, without any branches bearing leaves, although the flower-stalk may be divided, as in *Scrophularia nodosa*.

—— *simplicissimus*, when there is no division even of the flower-stalk, as in *Polygonum Bistorta*.

—— *sinistrorsùm*. Vide Volubilis.

—— *spinosa*, spiny or thorny, when it is furnished with sharp spines, which are not productions of the bark, and do not come off with it, as in the *Mespilus oxyacantha*, *Prunus spinosa*, *&c.*

—— *squamosus*, when it is covered more or less with leafy scales, which are closely applied to its surface, as in *Orobanche major* and *rubra*, *&c.*

—— *stipulatus*, stipulated, when it is furnished with *stipulæ* at the axilla of each leaf, as in *Vicia sativa*, *Lathyrus latifolius*, *&c.*

—— *striatus*, streaked or striated, when it is longitudinally indented with fine lines, as in *Rumex Acetosa*.

—— *strictus*, when it has no natural curve in any portion of its length, however thickly branched it may be, as in *Pinus Picea*, *Mentha viridis*, *&c.*

—— *subramosus*, slightly branched.

—— *sulcatus*, furrowed, when the stem is longitudinally indented with deep and rather broad hollows, like those of a fluted column, as in *Smyrnium Olusatrum*.

—— *teres*, round; a stem is said to be round, when a transverse section appears nearly circular (for no stem

is perfectly so), as is exemplified in *Datura Stramonium, Hydrangea hortensis, &c.*

Caulis *tetragonus*, four-cornered, when there are four rounded angles. Sometimes the angles are bordered, as in *Cactus tetragonus.*

—— *tetraqueter*, four-sided, when there are four flat sides forming acute angles, as in *Hypericum quadrangulum, &c.*

—— *tomentosus*, downy, when the hairs are soft to the touch like down, and so matted together that the particular hairs cannot be distinguished, as in *Verbascum Thapsus, Geranium rotundifolium, &c.*

—— *tortuosus*, when it is curved and writhed in different directions, but not regularly, as in the flexuose stems.

—— *trifariam*, when there are hairs placed longitudinally upon the stem in three separate rows.

—— *triangulatus.* Vide Trigonus.

—— *trigonus*, three-cornered, when there are flat sides, and three rounded angles, as in *Cactus Pitaiaya.*

—— *triqueter*, three flat sides, and the angles acute.

—— *vaginatus*, sheathed, when it is embraced by the base of each leaf, as is exemplified in the Grasses and Carices.

—— *verrucosus*, warty, when it is studded over with small hard warts or *papillæ*, which can be both felt and seen, as *Euonymus verrucosus.*

—— *verticalis.* Vide Erectus.

—— *villosus*, shaggy, when the pubescence consists of long soft hairs, as in *Stachys germanica, &c.*

—— *viscidus*, viscid, when it is covered with a clammy resinous exudation, as in *Silene nutans, Lychnis viscaria, &c.*

—— *volubilis*, when it winds itself spirally round any other plant, or upright slender body. When the turn-

ing is from right to left, it is called *sinistrorsùm*, as in *Lonicera Peryclymenum, Humulus Lupulus, &c.* When from left to right, it is termed *dextrorsùm*, as in *Convolvulus sepium.*

Cavis (from *cavus*, a hole), hollow.

Cellules (dimin. from *cella*, a cell), applied to those organs which have a membranous cellular substance.

Centralis (from *centrum*), the centre, when an organ is situated in the axis of another.

Centrifugus (from *centrum*, the centre, and *fugio*, to escape), a term especially employed respecting the situation of the embryon and its radicle in the albuminous substance.

Centripetus (from *centrum*, the centre, and *pes*, a foot), when there are more seeds than one, and their umbilici are turned towards the centre, either simply, in a single fruit having one or more cells, as in the genus *Corchorus*; or relatively, in conjugate fruits, as in the genus *Helleborus.*

Cerealia (from *Ceres*, the goddess of corn), a term used for grain, such as wheat or oats.

Cerinus (from *cera*, wax), wax-yellow.

Cernuus, drooping, pointing downwards. Vid. Caulis, &c.

Cervinus (from *cervus*, a stag), fawn-colour.

Chalaza (from χαλαζα, *à grando*, a hailstone), a place in the interior membrane of the seed, where the *funiculus umbilicalis* passes into the seed. Sometimes this is at a distance from the *umbilicus*, as in the seed of the *Citron* it is placed opposite to it.

Characeæ, a natural order of the class Cryptogamia, united to *Algæ* by Agardh. This is an extremely difficult order, the arrangement of which has not yet been determined upon. It consists wholly of aquatic plants, whose texture is filiform, tubular, branched, branches whorled: fructification of two kinds; a mi-

nute, sessile, solitary, spirally striated nucule, enclosed in a delicate membrane, filled with spornles; and a solitary globule, whose coat is composed of scales fitted to each other, which at length separate, and a mass of elastic filaments are produced. The genera *Chara* and *Nitella* constitute this order, whose physiology is not perfectly understood.

Character (from χαρακτηρ); the means of distinguishing a plant by some known properties.

—— *artificialis;* this contains only the discriminative marks of the organs of fructification, or where these are not distinct, the marks of those parts subservient to propagation.

—— *factitius;* this consists in selecting such discriminative marks as will serve to distinguish one genus from another.

—— *genericus;* the generic character is the expression of the peculiar and invariable marks by which a genus of plants is distinguished from all others.

—— *naturalis;* this contains a complete enumeration of all and each of the discriminative marks which are found in the whole plant.

Chartaceus (from χαρτης, *charta*, paper), an elastic plate (paper-like), assuming the form of a seed.

Chlorosis (from χλωρος, *viridis*, green), a disease in plants, in which the proper green colour dies away, and assumes a faint white.

Chorion (from χορεω, *evado*, to escape), the external membrane which surrounds the plumula and rostellum.

Cicatricula, (dimin. from *cicatrix*, a scar), a hollow commonly found at the base, and sometimes at the side of the seeds, and from which the germ proceeds.

Cicatrisatus (from *cicatrix*), scarred.

Cicatrix (from *cicatrico*, to heal up), the scar of a wound having new bark formed over it.

Cilia (from *cilleo*, to move), hairs or bristles which are placed upon the margin of the calyx, leaves, &c. as in *Arabis ciliata*.

Ciliatus (from *cilleo*, to move), hairs placed upon the margin of a leaf, resembling somewhat eye-lashes. Vide Folium.

Cinerascens (dimin. from *cinis*, ashes), somewhat of a grey colour.

Cinereus (from *cinis*), ash-grey: this is a common trivial name, as *Erica cinerea*, *Salix cinerea*, &c.

Cingens (from *cingo*, to gird), surrounding, or binding round.

Circinatus (from *circino*, to encompass round), a term of foliation, expressive of the leaves within the bud being rolled spirally downwards: it is also applied to a tendril when it is rolled spirally round. Vide Folium.

Circularis (from *circulus*, a circle), circular; round and flat, nearly in the form of a circle, as are the leaves of the *Alnus glutinosa*, or the petals in the genera *Fragaria* and *Mespilus*.

Circulus (dimin. from *circus*, a circle), the part of a circle most distant from the centre. It is used in botany to express the florets that are farthest from the centre of a compound flower, as the white ones which surround the yellow ones in *Bellis perennis*, or the florets in the outer part of an umbel.

Circumscissus (from *circumscindo*, to cut round about), a term applied to a capsule which is cut transversely. Vide Capsula.

Cirrosus (from *cirrus*), applied to a leaf terminating in a tendril. Vide Folium.

Cirrus (from κέρας, *cornu*, a horn), a tendril, a spiral shoot, or string, by means of which some plants support themselves against adjacent bodies. It is well exemplified in the genera *Bryonia* and *Pisum*.

Citrinus (from κιτρεον, *citreum*, a lemon), lemon-colour.

Classis, a class is distinguished by Linnæus to be an arrangement of several genera, in the parts of fructification, according to the principles of nature, distinguished by art.

Clausus (from *claudor*, to be closed), shut, when the tube of a corolla is closed with a valve. Vide Corolla.

Clavatus (from *clava*, a club), club-shaped, when a part of a plant is thinner at the base, and thicker upwards, as in the long receptacle of the *Arum maculatum*, and the fruit-stalk of the *Tagetes erecta*.

Clavicula (dimin. from *clavis*, a key), a little key, a species of tendril, used by ancient authors, for which Linnæus has substituted *cirrus*.

Clinanthium (from κλινη, *lectus*, a bed, and ανθος, *flos*, a flower), a term applied to the swelled receptacle in compound flowers.

Coacervatus (from *coacervo*, to accumulate), heaped together.

Coadunatus (from *caddo*, ex *con* and *addo*), when leaves are joined together. Vide Folium.

Coalitus (from *coalesco*, ex *con* and *alesco*, i. e. *cresco*, to increase), coalesced, when a part which has been wounded is again closed.

Coætanus (from *con* and *ætas*, from *ævum*, an age), coeval, of the same age or duration with another.

Coarctatus (from *coarctor*, to press together): in regard to inflorescence, it signifies a close contracted panicle; when applied to peduncles, or branches, it denotes their being crowded together.

Coccineus (from κοκκινος), red like scarlet, which word is applied as a specific name to some plants, as *Fuchsia coccinea* and *Delesseria coccinea*, &c.

Cocculus (dimin. from κοκκος), a loose bladder terminating

in a bill-shaped appendage. The name given by De Candolle in his Systema Natura to a new genus of plants, now changed to that of *Menispermum*.

Coccum (from κοκκος), a dry seed-vessel, which is elastic, and projects its seeds with great force, as in the genus *Euphorbia*.

Cochleariformis (from *cochlea*, a shell, and *forma*, a shape), spoon-shaped, when a seed has a spoon-shaped appearance.

Cochlearis (from *cochlea*), a corolla in the form of a spoon.

Cochleatus (from *cochlea*, κοχλαζω, to turn round), snail-shaped, when a pod is twisted like the shell of a snail. Vide Legumen.

Cœnothalamus (from κοινος, *communis*, and θαλαμος, *thalamus*): a division of the Lichens whose *apothecia* are formed in part from the substance of the *thallus*, are called *Cœnothalami*.

Cœruleus, sky-blue, a specific character by which some plants are distinguished.

Cohærens (from *cohæreo*, to stick together), being connected together at the base or apex, as in the anthers of some flowers. Vide Anthera.

Collum (dimin. from *columna*, a pillar, ἀ κωλον), the neck, the part where the stem and root are connected to each other.

Coloratus (from *color*, a colour), coloured, when a leaf or calyx is any other colour than green. Vide Bractea.

Columella (dimin. from *columna*), a central column passing through a capsule, to which seeds are usually attached, as in *Datura Stramonium*, &c.

Columniferus (from *columna*, a column, and *fero*, to bear), pillar-shaped.

Columnula (dimin. from *columella*, a little column), the central column in Mosses, extending from the base of the capsule to the top of the lid.

Coma, a tuft, a collection of floral leaves terminating the flowering stem, as in *Salvia*, and *Fritillaria Imperialis*. It is also remarkable in the Pine-apple.

Communis (from *con* and *munus*): when signifying a bud, it means that it contains both flower and fruit; when applied to a calyx, that it contains both receptacle and flower. Vide Calyx, &c.

Comosus (from *coma*), tufted, a tuft of hairs found upon seeds resembling a pappus, or fibres put forth from the base of a bulbous root.

Compactus (from *compingo*, to put together), when a leaf is of a close, firm substance.

Completus (from *compleo*, ex *con* and *pleo*), perfect; a flower is said to be complete when perfect in all its its parts. Vide Flos.

Complicatus (from *complico*, to fold up, ex *con* and *plico*), a plant being folded into itself, as the valves of the glume of some grasses.

Compositus (from *componor*, to place together), a compound flower; consists of many florets or little flowers placed upon one receptacle or seat, and included within one common calyx, as most of those in the class Syngenesia. Sometimes, but with less propriety, the flowers which grow in umbels are called compound, as those in the second order of the class Pentandria; vide Flos. A compound leaf is when the petiole bears more than one leaf, or when one leaf is inserted into another; vide Folium. Compound stems, when they divide into branches, and diminish in number and form as they ascend. Vide Caulis.

Compressus (from *comprimor*, to be pressed together, ex *con* and *premo*), a stem having two flat surfaces, which meet in projecting angles. A leaf resembling a cylinder compressed on the opposite sides. Vide Folium.

Concavus (from *concavo*, to make hollow), a hollow leaf,

the margin of which forms an arch with the disk. When applied to a petal, it signifies its being hollowed out like a bowl.

Conceptaculum (from *concipio*), a seed-vessel with a single valve, which opens longitudinally on one side, and has not the seeds attached to it, as in the genera *Stapelia*, *Asclepias*, &c.

Concolor (from *con* and *color*), having the same colour.

Conduplicatus (from *con* and *duplico*, to double), when the sides of a leaf are parallel, and approach each other. Vide Folium.

Confertus (from *confercio*, i. e. *condenso*), crowded and clustered, when flowers and leaves are formed into whorls round the stem, and crowded together. Applied to leaves when they are formed into clusters, and thickly set round the stem; to branches that are crowded together.

Confluens (from *confluo*, to flow together), the leaflets of a pinnate leaf, so flowing together that the pinnæ run into one another at the base. Vide Folium.

Conformis (from *con* and *forma*), correspondence of form.

Congestus (from *congero*, to pile up), heaped together, when the flowers are collected into a spherical form.

Conglobatus (from *conglobo*, to gather into a ball), when flowers are so collected as to form a globular head. Vide Flos.

Conglomeratus (from *conglomero*, to heap upon one), conglomerated, being irregularly crowded together, and having no peculiar support.

Conica *scabrities*, a species of setaceous scabrities, scarcely visible to the naked eye, on the surface of plants, formed like cones.

Conicus, conical, when a section of a body is round, its apex tapering and its base truncated.

Conjugatus (from *conjugo*, to couple together), coupled together; applied to a pinnated leaf with only one pair of leaflets. Vide Folium.

Conjunctus (from *conjungo*, to join together), joined together.

Connatus (from *con* and *nascor*), connate; when two opposite leaves grow together at the base, so as to have the appearance of one leaf. Vide Folium.

Connectivus (from *connector*); when an anther consists of several horizontal compartments, the cellular texture which connects the compartments is called connective.

Connivens (from *conniveo*), converging or approaching, closing. Vide Corolla and Anthera.

Consociatus (from *consocio*, to associate), the fruit standing near each other upon a common receptacle.

Contiguus (from *contingo*, ex *con* and *tango*, to touch), when the cotyledons touch each other mutually in every point, as in most plants.

Continuatus (from *contineo*, ex *con* and *teneo*, to hold together), continued, when the leaf appears to be a continuation of the stalk. Vide Folium.

Contortio (from *contorqueo*, to twist about), the turning and twisting of plants in different directions.

Contortuplicatus (from *contortuplico*), the cotyledons being much plaited and convoluted.

Contortus (from *con* and *torqueo*, to twist together), twisted, when the edges of the petals lie over one another in an oblique direction. Vide Æstivatio.

Contractus (from *contraho*, to draw together), contracted; a panicle is said to be contracted, when it is so much narrowed as nearly to resemble a spike. Vide Panicula.

Contrarius, contrary; valves are said to be contrary when the dissepiment is placed transversely between them.

Conus, a species of seed-vessel formed by a catkin with hardened scales, containing a seed within the base of each scale, as in the genus *Pinus*.

Convexus (from *conveho*), convex; in opposition to concave. Vide Folium.

Convolutus (from *convolvo*, to roll together), convoluted, a tendril being spirally twisted. Also a term of foliation, in which a leaf has a cylindrical appearance.

Corculum (dimin. from *cor*, the heart), the corcle or heart, the embryo of a seed.

Cordatus (from *cor*), heart-shaped, Vide Folium.

Coriaceus (from *corium*, leather), leathery; applied to a leaf that is thick, tough, and somewhat rigid; also to a capsule.

Cormus (from κορμος, *truncus*), used the same as *collum*.

Corneus (from *cornu*), horny; somewhat harder than cartilaginous. It is chiefly applied to seeds.

Corniculatus (from *corniculum*, a little horn), horn-shaped; a membrane inclosing the fructification being of a cylindrical horny nature.

Cornu, the horn; used the same as *calcar*.

Cornutus; the same as *corniculatus*.

Corolla (from *coronula*, dimin. from *corona*), the interior cover of the parts of fructification, termed the flower. It is not essential, and is sometimes wanting. When present it is composed of one or more petals, and generally a nectarium. It is of various forms and textures, which are the following, viz.

Corolla *barbata*, bearded, when there are parallel tufts of hairs placed upon the corolla, which is the nectary in some species of *Iris*.

—— *bifida*, a corolla is said to be cleft or cloven when divided only a short way down.

—— *bipartita*, bipartite, when divided nearly down to the base.

Corolla *campanulata*, a bell-shaped flower; consists of one petal, hollow like a bell as in the genus *Campanula*.

—— *clausa*, when the tube of the corolla is closed with a valve.

—— *composita*, a compound flower; consists of various florets aggregated and inclosed into one common calyx, upon one common receptacle, as is exemplified in the class Syngenesia. Vide Flos.

—— *composita flosculis ligulatis*, a species of compound flower, consisting of tongue or strap shaped florets, which are exemplified in *Leontodon Taraxacum*.

—— *composita flosculis tubulosis*, a species of compound flower, consisting of tubular florets only, as in the genus *Centaurea*.

—— *composita radiata*, a compound radiate flower; consists of semi-florets, which form the ray or circumference, and tubular florets in the disk, as in the genera *Aster*, *Chrysanthemum*, &c.

—— *connivens*, converging, when the tips of the petals meet so as to close the flower, as in *Trollius europæus*.

—— *cristata*, when the flower has a tufted appendage, as in *Polygala vulgaris*.

—— *cruciformis*, cross-shaped, consisting of four petals which are nearly equal, and standing opposite to each other, in the form of a cross. The expanding part is called the *lamina* or plate, the lower part the *unguis* or claw. It is beautifully exemplified in the genus *Cheiranthus*, and many other plants in the class Tetradynamia.

—— *cyathiformis*, a cup-shaped flower is a monopetalous corolla of a cylindrical form, widened a little at the top.

—— *decidua*, when the petals fall off with the stamens and pistils.

—— *dipetala*, when it consists of only two petals, as in *Euphorbia graminea*.

Corolla *explanata*, unfolded, when the lip of a corolla is spread out flat, as in *Antirrhinum canadense.*

—— *fimbriata*, fringed, when the edge of a corolla is surrounded by hairs or bristles not parallel to each other, or regularly disposed. It is exemplified in *Menyanthes trifoliata.*

—— *fornicata*, arched or vaulted, when the upper lip is formed like the roof of the mouth, as in *Ballota nigra* and many other ringent flowers.

—— *globosa*, globular, round like a ball, as in *Erica ramentacea.*

—— *hypocrateriformis*, salver-shaped, consisting of a plain, flat, spreading limb, standing on a short tube, as in the genera *Vinca, Androsace*, &c.

—— *imberbis*, beardless, when destitute of hairs or tufts; in opposition to *barbata*, as is exemplified in some species of *Iris.*

—— *infundibuliformis*, a funnel-shaped flower, has one regular petal, whose limb is shaped like a cone, and rises from a long tube, as in the genera *Nicotiana, Nerium*, &c.

—— *irregularis*, an irregular flower, consists of a corolla whose petals want uniformity, as in the genus *Lobelia.* This term is synonymous with the *anomalus* of Tournefort, and the *difformis* of Jungius and Christian Knaut.

—— *labiata*, a labiate flower, consists of an irregular monopetalous corolla, whose divisions resemble two lips. Vide Ringens.

—— *monopetala*, consisting of one petal, the lower part of which is the tube, the upper expanding part the limb; the opening of the tube is called the faux or throat. It is exemplified in the genus *Primula*, &c.

—— *papilionacea*, a butterfly-shaped flower, consists of four, and sometimes five, irregular petals; the upper-

most is the *vexillum*, or standard; the lowermost, which is sometimes divided into two, is termed the *carina* or keel; the two side petals are termed the *alæ*, or wings. This is exemplified in the class Diadelphia, and chiefly in the order Decandria, as in the genera *Pisum*, *Lathyrus*, *Vicia*, &c.

Corolla *pentapetala*, consisting of five petals, as in *Pæonia officinalis*.

—— *personata*, a personate or masked flower; is a ringent corolla, whose lips are closed by a palate. Vide Ringens.

—— *plicata*, folded, when a monopetalous corolla has the appearance of folds, as in the genus *Convolvulus*, *Datura*, &c.

—— *polypetala*, a polypetalous corolla; consists of many petals, as in *Rosa centifolia*.

—— *regularis*, a corolla is said to be regular when it is equal in figure, size, and proportion of its parts, as in *Ligustrum vulgare*, *Syringa vulgaris*, &c.

—— *resupinata*, a corolla is said to be reversed when the upper lip becomes the lower one, and on the contrary, so that the flower appears to be turned upside down. It is exemplified in the genus *Scrophularia* and some species of *Satyrium*.

—— *reticulata*, reticulated, when there are distinct veins crossing each other upon the petals, so as to form a network. This is beautifully exemplified in *Geranium striatum*.

—— *ringens*, a gaping or grinning corolla; has one irregular petal. It is either gaping, as in the genus *Lamium*; personate or masked, as in *Antirrhinum*; or labiate, as in the genus *Marrubium*.

—— *rotata*, a wheel-shaped corolla; is monopetalous, consisting of a single spreading limb, but destitute of a

tube, as in the genera *Borago, Lysimachia, Pimpinella,* &c.

Corolla *tetrapetala.* Vide Cruciformis.

—— *tripetala,* consisting of three petals, as in *Tradescantia virginica.*

—— *tubulosa,* tubular, as in *Strychnos Nux-vomica;* also in the compound flowers.

—— *urceolata,* pitcher-shaped, as in *Urceola elastica.*

—— *ventricosa,* bellied out, as in *Digitalis purpurea.*

Corollula (dimin. from *corolla*), a small corolla, which is used when speaking of the florets in an aggregate flower.

Corona, a crown, an appendage adhering to the top of many seeds, serving them as wings, which enables them to be dispersed by the wind.

Coronatus (from *corona*), crowned, the extremity of a capsule furnished with leaflets formed into a crown. Vide Capsula.

Coroniformis (from *corona,* a crown, and *forma,* a form), crown-shaped.

Coronula (dimin. from *corona,* a coronet or little crown), the border which surrounds the top of some seeds.

Cortex (from *corium,* a hide, and *tego,* to cover), the outer rind or bark of vegetables.

Corticalis (dimin. from *cortex*), applied to a bud consisting of leaves and scales.

Corticatus, a capsule covered with rind or bark, which is either membranous or coriaceous.

Cortina, slender threads which proceed from the volva in some of the Fungi tribe, or a term used where the volva is reduced to threads.

Corymbiferus (from *corymbus,* a corymb, and *fero,* to bear), applied to plants which bear their flowers in the form of a corymb.

Corymbus (from κορυμβον, or κορυμβος, a *branch* or *clus-*

ter crowning the summit of a plant; from κορυς, a *helmet*), a broad-topped spike or corymb. It differs from a spike in having the flowers of which it is composed not sitting, but standing each on its proper footstalk. They are unequal in length, the lowermost being the longest, the others gradually shorter as they ascend, so that the whole collection of flowers forms nearly a flat and broad surface at the top. It is particularly exemplified in the *Spiræa opulifolia*, &c.

Costa, a rib.

Costatus (from *costa*), ribbed, when lines extend from the base to the point. Vide Folium.

Cotyledones (from κοτυλη, a *cavity*), cotyledons, the perishable parts of a seed, designed to afford nourishment to the young plant when it first begins to expand. They furnish the seminal leaves. A bean, after being soaked in water, or put into moist earth, easily parts with its external skin, and divides into parts, called the seed-lobes. The greater number of seeds are furnished with two lobes; but some have more, others only one, and others none. Hence the distinction of plants into Acotyledones, Monocotyledones, Dicotyledones, Polycotyledones, which constitutes the basis of Jussieu's system of arrangement.

Cotyloideus (from κοτυλη, a *cavity*, and ειδος, a *resemblance*), a body depressed in the centre, and elevated at the margin.

Crassiusculus (dimin. from *crassus*), thickish.

Crassus (from κρεας, *caro*, flesh), thick, a term used in botany denoting a fleshy substance.

Crenatus (from *crena*, a notch), scolloped, when the margin of a leaf is cut in such a manner that the notches do not incline towards either extremity. Vide Folium.

Crenulatus (dimin. from *crena*), a leaf finely notched. Vide Folium.

Crinitus (from *crinis*, hair), applied to a pericarp which has capillary fibres; also a specific mark of distinction.

Crispus (from *crispo*, to curl or wreath), curled, when the margin of a leaf becomes expanded so as to be curled or twisted. Vide Folium.

Crista (from κερας, *cornu*, a horn, ex καρα, *caput*, the head), a crest; formed like a wing, but narrower, less flexible, and of a coriaceous or cork-like matter. It is placed on the back of fruits.

Cristatus (from *crista*), crested; when a flower has an appendage of a tuft of hairs called a crest. Vide Corolla.

Croceus (from κροκος, *crocus*, saffron), the colour of saffron.

Cruciatus. Vide Cruciformis.

Cruciformis (from *crux*, a cross, and *forma*, a shape), a cross-shaped flower, consists of four petals placed in opposite directions, as are those in the class Tetradynamia. Vide Corolla.

Crusta (from κρυος, *frigus*, cold), a granular form peculiar to some Lichens.

Crustaceus (from *crusta*, a shell), crustaceous; applied to a thin seed not capable of being softened by water, or cut with a knife, but which may easily be reduced to powder by rubbing between the fingers. It occurs frequently in the Palm tribe.

Cryptogamia (from κρυπτω, *celo*, and γαμος, *connubium*), the twenty-fourth class of the Linnean system. It may be considered as containing a number of vegetables whose flowers and fructification are but little, or very imperfectly known, and whose stamens and pistils are too minute to admit of that mode of investigation which prevails throughout the other classes. The structure, too, of these vegetables differs considerably from that of other plants.

Cubitus (from κυβιτον), a cubit, the length from the elbow to the extremity of the middle finger, which is about eighteen inches, or half an English yard.

Cucullatus (from *cucullus*, a hood), hooded or cowled, when a leaf is rolled up lengthways, in the form of a a cone. Vide Folium.

Cucullus (from κυκλος, *circulus*), a hood, which is found placed upon the top of a corolla of some plants, as that of the *Aconitum Napellus*.

Culmus (from καλαμος, *arundo*, a reed), a straw or culm; is a name strictly confined to the stems of grasses, rushes, and the gramineous *cerealeæ*. There are three different kinds as under:

Culmus *articulatus*, jointed, as in *Agrostis alba*, &c.

—— *enodis*, a stem without joints, as in *Juncus conglomeratus*, &c,

—— *geniculatus*, bent like the knee, as in *Alopecurus geniculatus*, &c.

Cuneatus. Vide Cuneiformis.

Cuneiformis (from *cuneus*, a wedge, and *forma*, a likeness), wedge-shaped, a leaf which is shaped like a wedge. Vide Folium.

Cuspidatus (from *cuspis*, a point), when a leaf terminates in a bristly point like the point of a spear.

Cyaneus (from κυανος), the Berlin blue, as in *Centaurea Cyanus*.

Cyathiformis (from *cyathus*, a little cup, and *forma*, a resemblance), cup-shaped, a corolla having its tube dilated above. Vide Corolla.

Cylindraceus (from κιλινδρος ἀ κυλιω, *volvo*, to roll), cylindrical, when a spike of flowers has the appearance of a cylinder. Vide Spica.

Cyma (from κυμα, *fœtus*), a cyme; a composition of flowers, in which a number of fruitstalks, proceeding from one common centre, rise to the same height; and these

again shoot out other little fruitstalks which do not proceed from one central point. The genera *Sambucus, Viburnum,* &c. furnish examples of this mode of inflorescence.

Cymbiformis (from *cymba,* a boat, and *forma,* a shape), boat-shaped; applied the same as *naviculàris.*

Cymosus (from *cyma*), flowers which are disposed in the form of a cyme.

Cyphella, a little cup; a peculiar kind of pit or pore, which has a peltate cavity and raised rim. It is found in some species of Lichens.

Cystis (from κυστις, *vesica,* a bladder), a species of pericarp, consisting of a three-fold involucre which does not open; one membranous, another succulent or fleshy, and the third or innermost membranous or brittle, as in the genus *Berberis.*

D

Dædaleus (from δαιδαλος ἀ δαιω, *scio,* vel δαιδαλλω, *artificiosè facio*), a dædal leaf; which is flexuose and lacerated, or winding and torn.

Debilis, applied to a stem which is weak and feeble. Vide Caulis.

Decagynia (from δικα, *decem,* and γυνη, *uxor*), the tenth order of the Linnean system, consisting of those flowers which have ten pistils.

Decandria (from δικα, *decem,* and ανηρ, *vir*), the tenth class of the Linnean system, containing perfect flowers which have ten stamens.

Decapetalus (from δικα, *decem,* ten, and πεταλον, *petalum,* a petal), applied to a corolla with ten petals.

Decaphyllus (from δικα, *decem,* and φυλλον, *folium*), applied to a calyx consisting of ten leaves.

Decemfidus (from *decem,* ten, and *fissus,* a cleft), tencleft.

Decemflorus (from *decem*, ten, and *flos*, a flower), applied to a stem bearing ten flowers.

Deciduus (from *decido*, ex *de* and *cado*, to fall off), applied to a leaf which falls off in the autumn; vide Folium. A corolla is deciduous whose petals fall off with the stamens and pistils. It is also applied to such calyces as fall off immediately after the expansion, and before the dropping of the flower. Vide Calyx.

Declinatus (from *declino*, to bend). Vide Caulis.

Decompositus (from *de* and *componor*, to be placed togegether), doubly compound. Vide Folium.

Decumbens (from *decumbo*, to lie down), decumbent. Vide Caulis.

Decurrens (from *decurro*, ex *de* and *curro*, to run along), decurrent, running down the stem. Vide Folium.

—— *decursivè-pinnatum*, decursively pinnate. Vide Folium.

Decussatus (from *decusso*, to divide across), decussated, when leaves growing in pairs alternately cross each other. Vide Folium.

Deflexus (from *deflecto*, to bend down), when a branch is bent a little downwards.

Defloratus (from *defloresco*, to fade or decay), applied to a stamen when it has discharged its pollen.

Defoliatio (from *de* and *folium*), the time in autumn when plants shed their leaves.

Dehiscens (from *dehisco*, to gape open), dehiscent, a term applied to anthers when they burst to discharge their pollen.

Dehiscentia (from *dehisco*), the duration of time in which capsules burst open to discharge their seeds when ripe.

Deliquescens (from *deliquesco*, to cousume), disappearing, applied to a footstalk which cannot be traced to the end.

Deltoideus (from δελτα, the Greek letter Δ, and ειδος, a

likeness), applied to a three-sided leaf, formed like the Greek Δ. Vide Folium.

Demersus (from *demergor*, to be sunk under water), immersed, when leaves are sunk below the surface of the water. Vide Folium.

Dentato-serratus. Vide Folium.

Dentato-sinuatus. Vide Folium.

Dentatus (from *dens*, a tooth), dentated or toothed. Vide Folium.

Denticulatus (dimin. from *dens*), formed the same as *dentatus*, but with smaller teeth.

Dena, ten together, as in many of the compound fruits.

Dendroides (from δενδρων, *arboretum*), shrub-like. Vide Surculus.

Deorsum (from *de* and *vorsum* vel *versum*), denotes a direction downwards.

Dependens (from *dependeo*, to hang down), depending, when a leaf is pointing towards the ground. Vide Folium.

Depressus (from *deprimor*, to be pressed down), depressed. Vide Folium.

Determinatè-ramosus, abruptly branched. Vide Caulis.

Dextrorsum, twining from left to right. Vide Caulis.

Diadelphia (from δις, *bis*, twice, and αδελφος, *frater*, a brother), the seventeeth class of the Linnean system, containing plants with perfect flowers, which have their stamens united below into two sets of cylindrical filaments, which are termed brotherhoods.

Diandria (from δις, *bis*, and ανηρ, *vir*), the second class of the Linnean system, containing plants which have perfect flowers, with two stamens only.

Diaphanus (from δια, *per*, through, and φαινω, *luceo*), almost transparent; applied to a pod which is nearly transparent. Vide Legumen.

Dicoccus (from δις and κοκκος), two-grained, when two

capsules are united together, each having one cell. Vide Capsula.

Dichogamia (from διχα ἀ δις, and γαμος, *connubium*); the term dichogamy is applied to plants whose stamens and pistils arrive at maturity at different periods. When the anthers arrive at this state first, it is called androgynous dichotomy, which is exemplified in the genus *Tropæolum*. When the stigma comes the soonest to maturity, it is called gynandrous dichogamy, and is exemplified in the genus *Euphorbia*.

Dichotomous (from δις, *twice*, and τεμνω, to *divide by pairs*), regularly forked. Vide Caulis.

Dicotyledones (from δις, *bis*, twice, and κοτυλη, *cavum*, a cavity), a mode of placentation wherein the seeds are furnished with two cotyledons or seed-lobes, which afterwards pass into seminal leaves.

Didymus (from δίδυμος, *duplex*, double); when applied to anthers, it signifies two being joined together on each filament; when alluding to capsules, it denotes twin capsules.

Didynamia (from δις, *bis*, and δυναμις, *vis*, power), the fourteenth class of the Linnean system, containing plants with perfect flowers, which have four stamens, two long and two short.

Difformis (from *de*, from, and *forma*, a form), difference in form; when the parts of a corolla do not correspond with each other, either in size or proportion; when a stem twists first one way and then the other. It is observed also in aquatic plants, whose leaves, which are immersed, are of a fine hair-like texture, while those above the water are broad and flat: on the other hand, in mountainous situations, the contrary is observed.

Diffusus (from *diffundo*, to disperse), diffuse, spreading in different directions. Vide Caulis.

Digitatus (from *digitus*, a finger), finger-like, a species

of compound leaf, in which the apex of the petiole connects many, but most commonly five leaflets, at its summit. Fide Folium.

Digitus (from *digero*, to direct), the length of the finger, or about three inches.

Digynia (from δις, *bis*, and γυνη, *uxor*), the second order of the Linnæan system, containing plants with perfect flowers, which have two pistils only.

Dilutus (from *diluor*, to be diluted), pale coloured.

Dimidiatus (from *dimidium*, the half of any thing), divided into two parts. Vide Calyptra.

Dimorphus (from δις, and μορφη, *forma*), when a part has a variety of forms in the same plant.

Dicœcia (from δις, *bis*, and οικος, *domus*), the twenty-second class of the Linnæan system, containing plants which have their stamens and pistils in separate flowers, and on separate plants.

Dicœcia planta; a plant is called dicœcious, which has flowers of the same kind occurring on distinct individuals.

Dipetalus (from δις and πεταλον), a corolla which consists of two petals. Vide Corolla.

Diphyllus (from δις, and φυλλον), applied to a calyx with two leaves. Vide Calyx.

Disciformis (from *discus*, a quoit, and *forma*, a likeness), disk-shaped; when the surface spreads so much that the diameter of the border is equal to, or greater than the centre, as in *Polytrichum commune*.

Discolor, having two different colours.

Discretus (from *discernor*), being separated; opposed to *contiguous*.

Discus (from δισκος), the central part of a radiate compound corolla, as is well seen in *Bellis perennis*. It is applied also to aggregate flowers, when the florets in the centre differ from those in the circumference, as

in the Umbellatæ. The root in some of the Algæ tribe is called a disk, which is destitute of fibres.

Dispar (from *de*, from, and *par*, equal); plants of the same kind having different shapes, are called *dispares*.

Dispermus (from δις and σπερμα), two-seeded, when plants produce their seeds in pairs, as in the Umbellatæ.

Dissectus (from *disseco*, to cut in pieces), divided, or cut into laciniæ. Vide Folium.

Disseminatio (from *dissemino*, to spread abroad), dissemination; the scattering of the seeds after they become ripe.

Dissepimentum (from *dissepio*, to separate), the internal partition of a capsule, which separates it into loculaments, or cells.

Dissiliens (from *dissilio*, to burst asunder), a pod bursting with elasticity.

Dissimilis, unlike in form.

Distans (from *disto*), standing apart, applied to verticillate flowers; also to anthers which are remote from each other.

Distichus (from δις, and στιχος, *versus*), two-ranked, when branches spread in two horizontal directions; when leaves appear in rows on each side of the stem. It is also applied to a spike whose flowers are all pointing two ways (opposed to *secunda*). Vide Caulis, &c.

Distinctus (from *distinguor*), unconnected, separated from each other, opposed to connate.

Diurnus (from *diu*), diurnal, appearing in the day-time.

Divaricatus (from *divaricor*), divaricated, when branches spread widely from each other in different directions.

Divergens, diverging, when branches spread almost horizontally, and make right angles with the stem.

Dodecagynia (from δωδικα, *duodecim*, and γυνη, *uxor*), the eleventh order, which has lately been established and

introduced into the Linnæan system, containing plants with perfect flowers, varying in their number of pistils, from twelve to eighteen, or even twenty.

Dodecandria (from δωδεκα, *duodecim*, and ανηρ, *vir*), the eleventh class of the Linnæan system, consisting of plants with perfect flowers, that, according to the title, have twelve stamens. This class, however, is not limited with respect to the number of stamens. Many genera have sixteen, eighteen, or even nineteen stamens. The essential character seems to be, that in the class in question, as in Polyandria, the stamens are inserted into the receptacle; whereas in the intermediate class Icosandria, which is as little determinate in point of number as the other two, they are attached to the inside of the calyx.

Dodrans (from δίδρα, *potio*), the distance between the thumb and little finger; or about nine inches.

Dodrantalis, a measure, the same as *dodrans*.

Dolabriformis (from *dolabra*, an axe, and *forma*, a resemblance), axe-shaped. Vide Folium.

Dorsalis (from *dorsum*, the back), dorsal, when an organ is situated upon the back of another, as is the awn upon the glume of some Grasses. It is also applied to some Ferns, in reference to the fructification.

Drupa, a stone fruit; a species of seed-vessel without valves, containing a hard nut, or stone, enclosed in a mass usually of a succulent, pulpy, or cartilaginous nature.

The following are the varieties, viz.

Drupa *alata*, when it has a membranous rim, as in the genus *Halesia*.

—— *baccata*; it is said to be berried, when it is surrounded with a very succulent coat, as in *Prunus domestica*.

—— *bipyrena*, when there are two nuts.

Drupa *dehiscens*, when the external rind bursts, as in *Myristica moschata*.

—— *exsicca*, dry, when it is covered with a spongy, membranaceous, or coriaceous substance, as in *Juglans regia* and *Amygdalus communis*.

—— *fibrosa*, when, instead of fleshy, it has a fibrous coat, as in *Cocos nucifera*.

—— *monopyrena*, when it contains but one nut, as in *Olea europæa*.

—— *tetrapyrena*, when it contains four nuts.

—— *tripyrena*, when there three nuts.

Ductus chyliferus, a channel serving to convey nutriment from the cotyledons to the embryo of the seed.

Duplex (from *duo* and *plico*), double.

Duplicato-crenatus, doubly crenate. Vide Folium.

Duplicato-dentatus. Vide Folium.

Duplicato-pinnatus, doubly pinnate.

Duplicato-serratus, doubly serrate. Vide Folium.

Duplicato-ternatus, doubly ternate. Vide Folium.

Duplicatus (from *duplicor*), doubled. Vide Folium.

Duratio (from *durus*); the duration of plants is the continuance of their life or existence.

Durus, hard.

E

Ebracteatus (from *è* priv. and *bractea*, a floral leaf), destitute of bracteæ or floral leaves.

Eburneus (from *ebur*, ivory) the colour of ivory.

Ecalcaratus (from *è* priv. and *calcar*, a spur), a corolla destitute of a spur.

Ecaudatus (from *è* priv. and *cauda*, a tail), destitute of a tail.

Echinatus (from ἐχῖνος, *echinus*, a hedge-hog), a pericarp set with prickles, as in *Glycyrrhiza echinata*, and some of the *Cucurbitaceæ*.

Effiguratus, the completion of a form.

Efflorescentia (from *effloresco*, to spring forth), a term expressing the time of year, or month, in which a plant shows its flowers.

Effœtæ antheræ, applied to anthers which are destitute of pollen.

Eglandulosus (from *è* priv. and *glandula*), glandless, or destitute of glands.

Elasticus (from ελατης, *impulsor*, to impel), elastic; applied to a pericarp which bursts with considerable force; synonymous with *dissiliens*.

Elater (from ελατης, *agitator*), a springer; a filiform elastic body, intermixed with the seeds of the *Jungermanniæ*. It is also called *Catenula*.

Ellipticus (from ελλειψις), elliptical. Vide Folium.

Elongatus (from *è* priv. and *longus*), elongated; applied to a peduncle which is much lengthened.

Emarginatus (from *emargino*), emarginated, when a leaf or corolla is deficient at its apex, and ends in a small notch. It is also applied to some species of pods.

Embryo (from εν and βρυω, *pullulo*, to germinate), the embryon (called also by Linnæus the *Corculum*), is the rudiment of the future plant, and is very essential to vegetation, as no seed can be perfect without it. In cotyledonous plants it is most conspicuous, and is found lying between the seed-lobes, of which it is more properly speaking a part, and from which it derives nourishment. In due time, it passes into the *plumula*, which ascends, and becomes the stem; and into the *radicula*, which descends, and becomes the root. The common garden Bean affords the most conspicuous view of this beautiful operation of nature.

Emergens (from *emergo*) emerging. Vide Folium.

Enervis (from *è* priv. and *nervus*), nerveless, or without nerves.

Enneandria (from ἐννεα, *novem*, and ἀνηρ, *vir*), the ninth class of the Linnean system, containing plants with perfect flowers, which have nine stamens.

Enneapetalus (from ἐννεα, *novem*, and πεταλον, *petalum*), a corolla with nine petals.

Enodis (from *è* priv. and *nodus*), without knot or joint. Vide Culmus.

Ensiformis (from *ensis*, a sword, and *forma*, a resemblance), sword-shaped. Vide Folium.

Ephemerus (from ἐπι and ἡμερα), ephemeral; when a flower shows itself for only one day, as in the genus *Hemerocallis*.

Epidermis (from ἐπι and δερμα), the scarf-skin, or outer covering of the bark of a plant.

Epigæus (from ἐπιγειον, *ex* ἐπι and γεα, *terra*); the epigean cotyledons are always the fore-runners of the appearance of a new plant, and either resemble herbaceous plants, as in the *Leguminosæ*, or true leaves, yet for the most part different from those in the *Compositæ*, &c. and they fall off spontaneously after the unfolding of the *plumula*.

Epigynous (from ἐπι and γυνη), those stamens and anthers which are united to the pistils are called *epigynæ*, as is observed in the class Gynandria; used by Jussieu to denote the insertion of the stamens above the germen.

Epipetalus (from ἐπι and πεταλον), one petal rising out of another, or inserted upon it.

Epiphragma (from ἐπι and φραγμα, *sepum*); a membrane is so named, which passes across the peristome or mouth of the capsule in the genus *Polytrichum*, and some others.

Epiphyllospermus (from ἐπι, φυλλον, and σπερμα); those

plants are so named, which bear seeds on the back of the leaves, as in some of the *Filices*.

Equisetaceæ, the first natural order of the class Cryptogamia (removed from *Filices*). This order contains only a single genus of plants (*Equisetum*), remarkable for their vegetation. The stems and branches form regular articulations from a tubular sheath. The branches are in whorls, and wholly destitute of leaves. The fructification is terminal, forming an oblong spike, composed of numerous, pedicellated, peltate scales, protecting the seeds.

Equitans (from *equito*, to ride); equitant, applied to leaves when they are folded one upon another. Vide Folium.

Erectus (from *erigor*, to be erect), upright; when a stem, branch, or leaf, rises in a perpendicular direction. Vide Folium.

Erosus (from *erodor*, to be gnawed out), jagged, or gnawed; when a leaf is irregularly cut or notched. Vide Folium.

Essentialis (from *essentia*), essential, a peculiar mark which distinguishes one genus of plants from all others.

Evalvis (from *è* priv. and *valva*, a valve); valveless, applied to a pericarp without valves.

Evanescens (from *evanesco*, to vanish away), the disappearance of a part, as the volva in the Fungi, which tears off as the pileus expands.

Evanidus (from *evaneo*), interrupted, when a nerve does not extend to the extremity of a leaf.

Evolutus (from *evolvor*), evolved, the first appearance of a corolla from its bud.

Exalbuminosus (from *ex* and *albumen*), when a seed is destitute of albuminous substance.

Exannulatus (from *ex* without, and *annulus*, a ring), a term employed to denote such Ferns, the capsules or

thecæ of which are destitute of an elastic ligamentous ring, as in the *Botrychium lunaria*, &c. The mouth or stoma of the theca is in some mosses surrounded externally with an elastic ring, which is wanting in others.

Exaratus (from *exaror*), scored or furrowed.

Exasperatus (from *exasperor*), roughened.

Excavatus (from *excavor*), excavated, hollowed out.

Excentricus (from *ex* and *centrum*), growing out of the centre, when an organ proceeds from the centre of another.

Excurrens (from *excurro*), excurrent, applied to a nerve in the leaves of mosses, when it reaches beyond the point.

Exfoliatio (from *exfolio*, to cast the leaf), a term denoting the fall of the leaf, and also the time of the year in which it takes place.

Exoticus (from ἐξωτικος, *peregrinus*, a foreigner, which is again derived from ἐξω, *foris*, from abroad), applied to plants which are natives of foreign countries.

Expansus (from *expandor*), spread out. Vide Folium.

Explanatus (from *explanor*), unfolded, spread out flat, which is the case sometimes with a labiate corolla. Vide Corolla.

Exsculptus (from *ex* and *sculpo*, to engrave), when there is a small hollow in the base, as in the seeds of the *Anchusa*.

Exsertus (from *exserto*, to stand out), protruded, when the stamens or anthers are standing out, or appearing above the corolla.

Exsiccus (from *exsiccor*), juiceless, when of a dry membranaceous or coriaceous substance. Vide Bacca.

Exsolatio (from *ex* and *solum*, the soil), transplantation, the time when plants can be removed from one soil to another.

Exterius dehiscens, a term applied to the involucre of Ferns, when it bursts outward, and in an opposite direction to the midrib. Vide Indusium.

Externus (from *exterus*), external.

Extipulatus (from *ex* and *stipulo*), destitute of a stipule.

Extrafoliaceus (from *extra*, without, and *folium*, leaf), when the stipulæ grow on the outside of the leaf, or below it, as in *Tilia europæa*.

Exulceratio (from *exulcero*, to make sore), the corroded part of a plant, from which proceeds an ichorous filthy fluid.

F

Factitius (from *facio*, to make), artificial. Vide Character.

Falcatus (from *falcor*, a falx or pruning-hook), hooked or sickle-shaped. Vide Folium.

Familia, a family: it includes all the genera which agree in one or more essential parts.

Farctus (from *farctior*), stuffed, in opposition to *tubulosus*.

Farina (from *far*), meal or dust, a substance which is found on the surface of some plants, as in *Atriplex laciniata*.

Farinosus (from *farina*), mealy, when a substance has a mealy appearance. Vide Folium.

Fasciatus (from *fascia*, a band, or roller), swathed; when several stalks are growing together, so as to form a a faggot or bundle.

Fascicularis (from *fascis*, a bundle), a fascicular or tuberous root, wherein the knobs or fibres are connected into bundles. Vide Radix.

Fasciculatus (dimin. from *fascis*), fasciculated; when leaves grow in bundles from the same point. Vide Folium.

Fastigiatus (from *fastigior*), fastigiated. Branches are fastigiate when they are placed at different heights upon the stem, and form a flat surface at the top. Peduncles are fastigiate, when they elevate the fructifications in a bunch, so that they are of an equal height. A fastigiate umbel rises gradually from the same point.

Faux (from φαγω, to eat), the throat, the internal part of a monopetalous tubular corolla, as is exemplified in the class Didynamia, and all monopetalous flowers. The upper part of the tube is called the neck, *collum*; and the opening is termed the mouth, *os*.

Favosus (from *favus*), honeycomb-like, applied the same as *alveolatus*.

Femina; this term is applied to a plant whose flowers bear pistils only.

Femineus (from *femina*). Vide Flos.

Fenestratus (from *fenestra*, à φαινω, *luceo*), windowed. Vide Folium.

Ferrugineus (from *ferrugo*, ex *ferri rubigo*), rusty-brown.

Fertilis (from *foro*, to bear), fertile, bearing fruit.

Fibra; a fibre is a thread proceeding from the main root for the purpose of imbibing moisture to support the plant.

Fibrilla (dimin. from *fibra*), the subdivision of a fibre.

Fibrosus (from *fibra*), fibrous. Vide Radix.

Fibula (qu. *figilula*, à *figo*), a name given by some authors to the stigma.

Figura (from *fingo*, to frame), figure; a property of natural bodies, from which marks and distinctive characters are drawn.

Filamentum (from *filum*, a thread), the filament, the thread-like part of the stamen, which supports the anther.

Filices (from *filum*), the first natural order of the class

Cryptogamia, according to the Linnean system (the fifth of late authors), containing plants which bear their fructification for the most part upon the back of the frond: But this is not always constant, as the genera *Ophioglossum* and *Botrychium*, with some others, have their fructification supported on distinct branches.

Filiformis (from *filum*, a thread, and *forma*, a resemblance), thread-like, of equal thickness throughout, applied to the peduncle, filament, style, and receptacle.

Filum, a thread, a slender filiform body.

Fimbria (qu. *fimbria*, from *finis*, the extremity), a fringe, a term applied to the dentate ring of the operculum of mosses, by the elastic power of which the operculum is displaced.

Fimbriatus (from *fimbria*), fringed, applied to the corolla. Vide Corolla.

Fissura (from *findor*), a slit, a separation of a solid body into a longitudinal cleft, which occurs spontaneously, or in consequence of disease.

Fissus (from *findor*, cleft or cloven), applied to leaves, pods, &c. having longitudinal sinuses, but which do not extend to the base.

Fistulosus (from *fistula*, a pipe), hollowed, opposed to *farctus*. Vide Caulis.

Flabellatus. Vide Flabelliformis.

Flabelliformis (from *flabellum*, a fan, and *forma*, a resemblance), fan-shaped. Vide Folium.

Flaccidus (from *flacceo*, to droop), feeble, slender. Vide Pedunculus.

Flagelliformis (from *flagellum*, a whip, and *forma*, a resemblance), whip-shaped. Vide Caulis.

Flagellum (from *flagrum*, à φλεγω), a twig, shoot, or runner.

Flavo-virens, a green colour, bordering upon yellow.

Flavus (from *flaveo*), a pale yellow.

Flexilis (from *flecto*), easy to be bent, as in *Chara flexilis.*

Flexuosus (from *flector*), zig-zag. Vide Caulis.

Flocci, short, thick, soft, irregular hispid hairs, which appear upon the leaves of some plants, as upon many in the genus *Verbascum.*

Floccosus (from *floccus*, wool), flocculent, when covered with a substance like wool. Vide Folium.

Floralis (from *floreo*, to flourish). Vide Folia floralia.

Florescentia (from *floresco*, to flourish), florescence, the time of year when plants expand their flowers.

Flos (from φλοξ), a flower; is a temporary part of a plant appropriated to the production of seeds. When complete it is composed of stamens, pistils, calyx, and corolla. The essential parts of a flower are the stamens and pistils; the other parts are not always present, nor are they essential to fructification. The different modes of flowering are the following, viz.

Flos *aggregatus*, an aggregate flower; is a species of compound, composed of a number of florets enclosed in one common calyx, or seated upon one common receptacle. They are so disposed that none of them can be taken away without destroying the uniformity of the whole. It is exemplified in the genera *Statice, Scabiosa, Dipsacus*, and several others.

—— *amentaceus*, a species of aggregate, which produces flowers in an *amentum* or catkin, as in *Corylus Avellana* and the genus *Salix*, &c.

—— *completus*, a complete flower; when a flower is composed of a corolla, stamens, pistil, and calyx.

—— *compositus*, a compound flower; is composed of several florets of a tubular form, seated upon a receptacle,

and enclosed in one common calyx. Each floret is furnished with five stamens distinct at the bottom, but united into a cylinder at the top, as in the class Syngenesia.

Flos *conglobatus*, a globular flower; consists of a number of tubular florets collected together into a globular form, as in the *Budlea globosa*.

—— *fœmineus*, a flower is so termed which contains pistils only, as is exemplified in the class Dioecia.

—— *glumosus*, a glumose flower; is a species of aggregate flower which has a filiform receptacle, containing a number of florets, the base being furnished with a glume. Of this kind are the Grasses; also the *Scirpus*, *Cyperus*, and *Carex* tribes.

—— *hermaphroditus*, a species of inflorescence wherein stamens and pistils are enclosed together in the same corolla.

—— *imperfectus*, imperfect, when a flower is destitute of either anthers or stigma.

—— *incompletus*, a flower is said to be incomplete when it is destitute of either corolla or calyx, or sometimes both.

—— *masculus*, a flower is thus termed which contains stamens only, as occurs in the class Dioecia.

—— *nudus*, a naked flower implies that either the calyx or corolla is wanting, or sometimes both.

—— *plenus*, a full or double flower; expresses the highest degree of luxuriance. The petals are so multiplied as to exclude the stamens, and most commonly the pistil. These flowers, although beautiful to the eye, are termed vegetable monsters. Polypetalous corollæ are most liable to this degree of luxuriance, as in the genera *Rosa*, *Ranunculus*, *Papaver*, *Pœonia*, &c.

—— *perfectus*, a perfect flower; consists of the corolla,

stamens, pistil, and calyx. No flower can be said to be perfect when destitute of any of these organs.

Flos *prolifer*, a proliferous flower; is when one flower rises out of another, which sometimes occurs in the genera *Primula*, *Geum*, &c.

—— *spadaceus*, a spadaceous flower; is a species of aggregate, which has a receptacle common to many florets, as is exemplified in the Palms; also in the genus *Arum* and some others.

—— *superus*, a superior flower, when the receptacle of the flower is placed above the germen, as in the genera *Galanthus*, *Narcissus*, &c.

—— *umbellatus*, a species of inflorescence wherein flowers are arranged in umbels on partial and universal footstalks.

—— *verticillatus*, a whorled flower, is a mode of inflorescence wherein the flowers grow in whorls round the stem, as is exemplified in the class Didynamia.

Flosculosus (from *flosculus*), a floscular flower, is a compound flower composed of tubular florets, a term used by Tournefort, for which Linnæus has substituted *tubulosus*.

Flosculus (from *flos*), a little flower; a single tubular floret of a compound flower, which is bell-shaped, and has five reflexed segments arising from the tube, as in *Bellis perennis*, &c.

Fœcundus (from *fœtus*), saturated with pollen.

Foliaceus (from *folium*), leafy, or having the nature of a leaf.

Foliatio (from *folium*), foliation, the complication of leaves whilst folded within the bud.

Foliatus (from *folium*), a leafy stalk. It is placed in opposition to *aphyllus*.

Foliiferus (from *folium*, a leaf, and *fero*, to bear), foliferous, producing secondary leaves. Vide Folium.

Foliolum (dimin. from *folium*), a leaflet, the subdivision of a compound leaf.

Foliosus (from *folium*), leafy, when leaves are intermixed with flowers.

Folium (from φυλλον, a leaf). Leaves are expansions of the cellular substance, interspersed with variously divaricating bundles of vessels, and contained between layers of cuticle. They are inserted either mediately or immediately upon the stem or branches. They are very various in their colour and appearance, and are the organs by means of which certain changes on the nutritive fluids of plants are effected. Leaves are either simple or compound, and have various forms, consistencies, situations, and directions, which are expressed in the following terms, viz.

In regard to the Situation and Position of leaves we say,

Folia *alterna*, alternate; instead of being in pairs, leaves stand solitary upon the stem or branches, spreading in various directions, as in the genus *Borago*, &c.

—— *articularia*, articular, when the stem or branch leaves are seated upon joints.

—— *bina*, when there are only two leaves upon a plant, or stem, as in *Galanthus nivalis*, *Scilla bifolia*, &c.

—— *caulinaria*, stem-leaves are those which are attached to the stem, mediately or immediately, by the means of a petiole, as in *Paris quadrifolia*, *Polemonium cœruleum*, &c.

—— *conferta*, when leaves are crowded together, as in *Trientalis europœa*.

—— *coronantia*, crowning, when they terminate the stem, or the divisions form as it were a plume of feathers, as in the genus *Palma*.

—— *cruciata*, cruciate, when four leaves are arranged

round the stem in the form of a cross, as in *Galium cruciatum.*

Folia *cruciformia.* Vide Cruciata.

—— *decussata,* decussated, when they alternately cross each other, as in *Keronica decussata, Melaleuca thymifolia,* &c.

—— *disticha,* two-rowed, when spreading in two directions, and yet not regularly opposite at their insertion, as in *Pinus canadensis* and *Taxus baccata.*

—— *fasciculata,* tufted, when there are several leaves springing from the same point, as in *Pinus Larix.*

—— *floralia,* they are termed floral leaves when situated close to or between the flowers. These also have received the name of *bracteæ,* and are exemplified in *Lonicera caprifolium, Helleborus viridis;* and several of the *Orchis* tribe afford examples of green floral leaves.

—— *imbricata,* imbricated, when they lie over each other like tiles on a roof, as in *Calluna vulgaris* and *Euphorbia paralia,* &c.

—— *opposita,* when leaves are opposite to each other in pairs, as in *Saxifraga nigra,* &c.

—— *quaterna, quina,* &c. quaternate, quinate, when four, five, or more, are situated on the stem, as in various species of *Erica.*

—— *radicalia,* radical leaves are such as are seated on or spring directly from the root, as in *Primula vulgaris, Leontodon Taraxacum.*

—— *ramea,* branch leaves, are such only as differ from those on the main stem; in such case it is requisite to distinguish them; as is exemplified in *Melampyrum arvense.*

—— *remota,* remote, when they are at a greater distance from each other than is usual in the majority of plants.

—— *roselata,* when they do not overlap each other close-

ly, and the leaves regularly diverge, producing a figure resembling a rose.

Folia *seminalia*, seminal leaves are a transformation of seed-lobes into leaves of temporary duration, which perform the functions of leaves until the leaves themselves appear; at which time they fall off.

—— *sparsa*, when the leaves are irregularly scattered, as in *Lilium chalcedonicum* and *bulbiferum*.

—— *spiralia*, when leaves form a spiral line round the stem, as in *Pinus Abies*.

—— *stellata*. Vide Verticillata.

—— *ternata*, ternate, when three stand together, as in *Verbena triphylla*.

—— *verticillata*, whorled; when there are several leaves (more than four) pointing in different directions round the stem in a star-like form, as in *Galium Mollugo* and *Hippuris vulgaris*.

In regard to Insertion, or the modes in which leaves are connected to a stem or branch, some of which are taken to form specific characters:

Folia *amplexicaulia*, when they clasp the stem with their base, as in *Gentiana campestris*, *Lamium amplexicaule*, *Hieracium amplexicaule*, &c.

—— *connata*, connate, when united at their base, as in *Lonicera Caprifolium*, &c.

—— *connato-perfoliata*, when the union takes place in nearly the whole breadth of the leaves, so as to give them the appearance of being united into one leaf, as in *Chlora perfoliata*. Sometimes a membrane is extended round the stem, so as to unite the leaves in a pitcher-like form, which holds water, as is exemplified in *Dipsacus fullonum*.

—— *decurrentia*, decurrent, when the lamellar part of a leaf runs down so as to form a winged stem, as in *Ono-*

pordum Acanthium, Carduus tenuiflorus, Verbascum Thapsus, Symphytum officinale, &c.

Folia *equitantia,* equitant, when disposed in two opposite rows they clasp each other by their compressed base, as in *Narthecium ossifragum,* and the genus *Iris.*

—— *florifera,* floriferous, when flowers are produced upon the upper disk of the leaves, as in *Ruscus aculeatus;* upon the margin, as in *Xylophylla latifolia* and *falcata;* upon the petiole, as in *Turnera cuneiformis.*

—— *foliifera,* foliferous, when secondary leaves are produced from the primary ones, as in the *Lemna trisulca.*

—— *peltata,* peltate or shield-shaped, when of a roundish figure, and the footstalk inserted into the centre, as in *Tropæolum majus.*

—— *perfoliata,* perfoliate, when leaves themselves are perforated by the stem, as in *Bupleurum rotundifolium.*

—— *petiolata,* petiolate, when leaves are supported upon footstalks, as in the majority of plants.

—— *prolifera,* proliferous, when leaves put forth roots, and produce plants resembling themselves in every respect. This display of a proliferous leaf is beautifully exemplified in the *Cotyledon calycinum.*

—— *sessilia,* sessile, when the footstalk is wanting, as in *Anchusa sempervirens* and *Pinguicula vulgaris,* &c.

—— *soluta,* loose, when leaves appear unconnected with the stem, but merely resting upon it, as in some succulent plants.

—— *spinifera,* when producing spines in the same manner as the stem, as is evident in many exotics.

—— *vaginata,* sheathing, when leaves embrace the stem so as to enclose it in a sheath, as in *Phleum alpinum, Arundo arenaria* and *Phragmites.*

In regard to the Direction of a leaf, it is

Folium *adpressum,* when the upper disk is closely pressed

to the surface of the stem or branch, as in *Xeranthemum sesamoides.*

Folium *cernuum,* nodding or inclined, when the leaf is spread with a drooping apex.

—— *demersum.* Vide Submersum.

—— *demissum.* Vide Dependens.

—— *dependens,* penduleus, when the whole leaf is drooping.

—— *deviatum.* Vide Obliquum.

—— *emergens,* emerging, when a leaf is raised upon its petiole above the surface of the water, as in *Alisma Plantago.*

—— *erectum,* when nearly in the direction of a perpendicular, a leaf is said to be erect, in which case it forms an acute angle with the stem, as in *Juncus articulatus.*

—— *horizontale,* horizontal, when a leaf approximates to a right angle with the stem or branch when these are erect, as in *Gentiana campestris.*

—— *humifusum.* Vide Procumbens.

—— *immersum.* Vide Submersum.

—— *inclinatum.* Vide Cernuum.

—— *incurvum.* Vide Inflexum.

—— *inflexum,* a leaf is inflexed when the convexity is downwards, as in *Erica empetrifolia.*

—— *natans,* when a leaf is floating upon the surface of the water, as in *Nymphæa alba, Alisma natans,* &c.

—— *obliquum,* twisted, so that one part of a leaf is vertical, the other horizontal, as in *Fritillaria obliqua* and *Allium obliquum.*

—— *patens,* spreading, when the angle of the leaf is moderately acute, and the surface approaches towards the horizon, as in *Atriplex portulacoides.*

—— *patentissimum.* Vide Horizontale.

—— *patulum.* Vide Patens.

Folium *pendulum.* Vide Dependens.

—— *procumbens,* when leaves lie on the surface of the ground as those of the *Bellis perennis, Plantago media,* &c.

—— *reclinatum,* when the leaf is bent down towards the petiole, as in the genera *Anemone, Adoxa,* &c.

—— *recurvatum.* Vide Reflexum.

—— *reflexum,* a leaf is said to be reflexed when it forms a curve, the convexity of which is upwards, as in *Erica retorta.*

—— *resupinatum,* reversed, when the surface which is commonly undermost is found uppermost, as in *Alstræmeria pelegrina.*

—— *secundum,* unilateral, when the leaves all point to one side, as in *Polygonum multiflorum,* &c.

—— *submersum,* immersed, when sunk under water, as in *Potamogeton perfoliatum.* In some aquatic plants we observe leaves which are immersed, and leaves which float upon the surface; of this kind is the *Ranunculus aquatilis,* the leaves of which growing under the water, are divided into capillary segments, whereas those which float on the surface are lobed, and notched.

—— *unilaterale.* Vide Secundum.

In regard to Form, leaves are either Simple, like those of the Grasses, Orchises, Lilies, &c. or Compound, as in most Umbelliferous plants.

Of Simple Leaves.—Simple leaves are those which are undivided, as in *Polygonum Bistorta,* or lobed, as in *Vitis vinifera,* &c. and are of various consistencies, as

Folium *acerosum,* needle-shaped, when it is rigid and acute, as in *Pinus sylvestris, Juniperus communis,* &c.

Folium *angulatum*, when the circumference has considerable projections which are not lobular.

—— *bifidum*, two-cleft, having two longitudinal sinuses, which extend only a short way down.

—— *bilobum*, two-lobed, when a leaf is divided into two lobes.

—— *bipartitum*, twice parted, when divided nearly down to the base.

—— *bipinnatifidum*, doubly pinnatifid, when the common petiole has pinnatifid leaves on each side of it, as in *Papaver Argemone*.

—— *capillare*, when a leaf is long, fine, and flexible, resembling hair, as in *Stipa pennata*.

—— *cordato-lanceolatum*, cordate-lanceolate, when a leaf is of a heart-shape, and takes a narrow oblong form.

—— *cordato-ovatum*, cordate-ovate, is a leaf which is heart-shaped, and rounded at the apex into an egg-shaped form.

—— *cordato-sagittatum*, a leaf which is heart-shaped, having also the form of an arrow.

—— *cordatum*, heart-shaped, when a leaf is hollowed out at the base into two lobes, and pointed at the apex, so as to resemble the heart on a card, as in *Tamus communis*, *Listera cordata*, &c.

—— *cuneatum*. Vide Cuneiforme.

—— *cuneiforme*, wedge-shaped, when broad and abrupt at the apex, it tapers towards the base, as in *Saxifraga cuneifolia*.

—— *deltoideum*, trowel-shaped, when a leaf has three angles, or resembling the Greek Δ, one of the angles forming the apex, as in *Chenopodium Bonus-Henricus*.

—— *dissectum*. Vide Incisum.

—— *ellipticum*, elliptical or oval, when it is twice as long as it is broad, and nearly equally round at both ends, as in *Convallaria majalis*, and others of the same genus.

Folium *ensiforme*, sword-shaped, when it is long, tapering to a point, thin on both edges, and slightly curved, as in the genus *Iris*.

—— *fasciarium*, riband-like, which resembles the linear, but differs in being broader, and not parallel towards the apex, as in *Arundo colorata*.

—— *fissum*, cleft or cloven, when the clefts extend but a short way down, and the margins of the segments are nearly straight lines, as in *Salisburia adiantifolia*.

The terms *bifidum*, *trifidum*, *multifidum*, are expressive of the number of clefts or segments in a leaf.

—— *flabelliforme*, when the apex is much extended, resembling the wedge-shape at the base.

—— *hastato-lanceolatum*, when a leaf which has the appearance of a halbert shape takes the lanceolate form.

—— *hastatum*, halbert-shaped, when the sides are produced into two lateral spreading points or lobes near the base, as in *Rumex Acetosella* and *Antirrhinum Elatine*.

—— *incisum*, cut or divided, which is merely a modification of *laciniatum*.

—— *laciniatum*, laciniated, when a leaf is cut into numerous irregular segments, as in *Ranunculus parviflorus* and *Geranium columbinum*, &c.

—— *lanceolato-ellipticum*, when a leaf is of an oval form, but much longer than broad.

—— *lanceolatum*, lanceolate, when a leaf is much longer than broad, and tapering towards both base and apex, as in *Plantago lanceolata*, *Tulipa sylvestris*, &c.

—— *lineare*, linear, narrow, with parallel sides, as in most Grasses; also in *Narcissus Pseudo-Narcissus*.

—— *lineari-cuneiforme*, a wedge-shaped leaf, which is long and narrow.

Folium *lineari-lanceolatum*, a leaf which is long and narrow.

—— *lineari-subulatum*, when a leaf is long and narrow, and terminates in an awl-shaped point.

—— *lobatum*, lobed, when a leaf is deeply divided into round segments, as in *Anemone Hepatica*.

—— *lunulatum*, crescent-shaped, when a leaf is curved in the form of a crescent, whether the points are directed towards the stem or from it, as in *Passiflora lunulata*.

—— *lyratum*, lyre-shaped, when the apex of the leaf is rounded, and there are several small lateral lobes towards the base, as in *Barbarea vulgaris*.

—— *multifidum*, many-cleft.

—— *multipartitum*, much divided, when a leaf is divided into many segments, extending nearly to the base, as in some of the Palm tribe.

—— *obliquè-cordatum*, obliquely cordate, when the apex, instead of being opposite to the base, is thrown off at one side, as is exemplified in the genus *Begonia*.

—— *oblongum*, oblong, when a leaf is much longer than broad. This serves chiefly as a specific character to contrast a leaf which has a variable or not a very decided form, with others which are precisely round, ovate, linear, &c.

—— *obovatum*, obovate, when the ovate is reversed, its apex being broader than the base, as in the genera *Primula* and *Bellis*, &c.

—— *orbiculare*, circular, when its length and breadth are equal, and the circumference is a circular line. Precise examples of this cannot be found; but some species of *Piper* approach it, and the leaf of *Hedysarum styracifolium* is perfectly orbicular, except having a a notch at its base.

—— *ovale*. Vide Ellipticum.

Folium *ovato-lanceolatum*, when a leaf is egg-shaped, but much longer than broad.

—— *ovatum*, ovate or egg-shaped, when the length is greater than the breadth, with both extremities rounded, but the base broader than the apex, as in *Urtica pilulifera* and *Vinca major*.

—— *palmatum*, a palmate leaf is when it is cut into oblong finger-like segments, not extending to the base, but leaving an entire flat surface like the palm of the hand, as in *Helleborus viridis*.

—— *panduræforme*, violin-shaped, oblong, broad at each extremity, and contracted in the middle, as in *Rumex pulcher*.

—— *partitum*, parted, when the division of a leaf reaches nearly to the base, as in *Helleborus viridis*.

—— *pectinatum*, pectinate, when the segments are very narrow, linear, and parallel like the teeth of a comb, as in the lower leaves of the *Myriophyllum verticillatum* and those of *Hottonia palustris*.

—— *pinnatifidum*, pinnatifid, when there are several oblong parallel segments cut transversely, as in *Bunias Cakile, Coronopus didyma, Myriophyllum verticillatum*, &c.

—— *quadrangulatum*, four-angled, as in *Liriodendrum tulipifera*.

—— *quadrifidum*, when there are four divisions extending a short way down.

—— *quadrilobatum*, &c. four-lobed, and so on, according to the number of lobes.

—— *quadripartitum*, four-parted, a leaf having four divisions.

—— *quinquangulatum*, five-angled, when a leaf has five projecting angles, as in some of the leaves of *Hedera Helix*.

—— *quinquepartitum*, five-parted, when a leaf has five

divisions extending nearly to the base, as in the *Helleborus fœtidus*.

Folium *quinquefidum*, five-cleft.

—— *reniforme*, kidney-shaped, when the apex is broad and rounded, and the base hollowed out, as in *Asarum europæum* and *Sibthorpia europæa*.

—— *repandum*, repand, when there are numerous minute angles upon the margin of a leaf, giving it a wavy appearance, as in *Menyanthes nymphæoides* and *Inula dysenterica*.

—— *rhomboideum*, rhomboid or diamond-shaped; a rhomboid leaf has lines which describe the edges, forming obtuse angles on each side, pointing outwards, as in *Chenopodium olidum*, *Trillium erectum*, &c.

—— *runcinatum*, runcinate, when a leaf is cut into several transverse acute segments, which point backwards, as in *Leontodon Taraxacum*.

—— *sagittato-ovatum*, a leaf which is rounded at the apex, and arrow-shaped at the base.

—— *sagittatum*, arrow-shaped, when the disk is triangular, and the sides are produced downwards into two pointed lobes like a barbed arrow, as in *Sagittaria sagittifolia* and *Rumex Acetosa*.

—— *sectum*. Vide Laciniatum.

—— *semilunulatum*. Vide Lunulatum.

—— *simplex*, a simple leaf, is entire and undivided, as in the Grasses; or lobed, as in *Hedera Helix*.

—— *spatulatum*, spatulate, when rounded at the apex it gradually tapers towards the base, as in *Silene Otites*, *Cistus incanus*, &c.

—— *subrotundo-cordatum*, a heart-shaped leaf, which is somewhat rounded.

—— *subrotundum*, roundish; it approaches to the circular figure, as in the genus *Pyrola*, &c.

—— *subulatum*, awl-shaped, when a leaf is thick at the

base, and gradually attenuates to a sharp point, as in *Salsola Kali* and *Subularia aquatica*, &c.

Folium *triangulatum*, three-angled, when a leaf has three prominent angles, without any reference to their measure or direction, as in *Cochlearia danica*, and some of the leaves of *Hedera Helix*.

—— *tripartitum*, thrice-parted, when there are three divisions in a leaf, reaching nearly to the base.

—— *trilobum*, three-lobed, when a leaf has three-lobed divisions, as in *Anemone Hepatica*.

Regarding the Figure of a leaf, we speak of its length, breadth, and thickness, determined by transverse and longitudinal sections.

Folium *acinaciforme*, scymitar-shaped, when one edge is sharp and curved like a scymitar, and thick, flat, and straight, as in *Mesembryanthemum acinaciforme*.

—— *anceps*, two-edged, when the edges terminate in an acute angle, the same as *ensiforme*.

—— *capillaceum*, capillaceous, when a leaf is as fine as a hair.

—— *clavatum*, club-shaped, when a leaf is round and stem-like, with a thickened apex, as in *Anabasis foliosa*.

—— *compressum*, compressed, when a thick leaf is flattened on each side, as in *Mesembryanthemum uncinatum*.

—— *cylindricum*. Vide Teres.

—— *dolabriforme*, hatchet-shaped, when a leaf is compressed, with a prominent dilated keel resembling a hatchet, as in *Mesembryanthemum dolabriforme*.

—— *fusinum*, when a leaf is cylindrical in the middle, and tapering to a point at each end.

—— *gibbum*, gibbous, swelling on one or both sides from

an excessive abundance of pulp, as in *Aloe retusa* and *Lemna gibba.*

Folium *lenticulare,* lenticular, when a leaf is flat, roundish, and convex on both surfaces.

—— *lingulatum,* tongue-shaped, when a leaf is thick, oblong, and blunt, generally cartilaginous at the edges, as in *Mesembryanthemum linguiforme, Dendrobium linguiforme,* &c.

—— *ovoideum,* when a leaf somewhat resembles an egg.

—— *semicylindraceum,* semicylindrical, when one side of a leaf is flat, and the other convex, as in *Salsola fruticosa* and *Chenopodium maritimum.*

—— *sphæroideum,* spherical, when it approaches to a globular form.

—— *teres,* cylindrical; when a transverse section, made any where throughout the greater part of the length of the leaf, is circular, as in *Conchium globosum.*

—— *tetragonum,* four-edged, when a leaf has prominent angles, as in *Iris tuberosa.*

—— *trigonum,* three-edged, when a leaf has three longitudinal sides, as in *Mesembryanthemum aureum.*

—— *triquetrum,* this term was used by Linnæus to denote a three-sided awl-shaped leaf, but is quite superfluous.

—— *tubulosum,* tubular, when the greatest portion of a leaf is cylindrical, or nearly so, tapering to a point, and hollow within, as in *Allium Cepa.* The leaves of the *Lobelia Dortmanna* have a double tube. Sometimes the hollow is formed by two sides of a leaf being compressed together, but separated near the midrib, so that one part of a leaf is flat and another tubular, as is beautifully exemplified in the genus *Sarracenia.*

—— *uncinatum,* hooked, when a leaf is curved in a manner so as to resemble a hook.

The Termination of a leaf.

Folium *acuminatum*, when a leaf ends in a tapering awl-shaped point, as in *Arundo Phragmites* and *Scirpus maritimus*.

—— *acutè-emarginatum*, a leaf which has a notch at its apex, but ends sharply.

—— *acutiusculum*, when a leaf has but a slight degree of acuteness at the apex.

—— *acutum*, a leaf is said to be acute when the apex terminates in a sharp angle, as in *Campanula Trachelium* and *Linum angustifolium*.

—— *aristatum*, awned, when the apex terminates in a long spine, which does not appear the continuation of the leaf.

—— *circinatum*. Vide Cirrosum.

—— *cirrosum*, a leaf ending in a tendril, as in *Gloriosa superba*. This is sometimes furnished with an additional organ; as in the genus *Nepenthes*, the apex of the leaf terminates in a thread bearing a covered pitcher generally filled with water. In another instance, the appendage is composed of a pair of toothed lobes, which are irritable, and which close and imprison insects that alight upon them, as is exemplified in *Dionæa muscipula*.

—— *cuneiformè-emarginatum*, a wedge-shaped leaf, with a rounded notch at its apex.

—— *cuspidatum*, sharp-pointed, when a leaf gradually extends itself into a rigid, spear-shaped point, as in *Cnicus lanceolatus*.

—— *emarginatum*, when there is a small notch at the summit of an obtuse leaf, as in *Colutea arborescens*.

—— *inæquale*, unequal or oblique, when the two halves of a leaf are of different lengths, and their bases not parallel, as in *Eucalyptus resinifera*, and many species in the genus *Begonia*.

Folium *incrassatum*, a solid leaf thickened at the apex, but not so much so as to render it club-shaped.

—— *mucronatum*, spine-pointed, a rounded leaf, tipped with a rigid, herbaceous spine, as in *Onopordum macrocanthum*.

—— *obtusè-emarginatum*, when the notch at the apex of a leaf is much blunted.

—— *obtusum cum acumine*, a blunted leaf, with a small point at the apex, as in *Statice Limonium*.

—— *obtusum*, blunt, when a leaf terminates in a segment of a circle, as in *Primula vulgaris*, *Hypericum quadrangulum*, and *Linum catharticum*.

—— *præmorsum*, jagged, when a leaf has irregular notches which give the appearance of being bitten, as in *Caryota urens*.

—— *retusum*, when a leaf ends in a broad shallow notch, as in *Rumex digynus* and *Crotalaria retusa*.

—— *tridentatum*, when the apex terminates in three teeth.

—— *truncatum*, when an abrupt leaf has its extremity cut off by a tranverse line, as in the tulip-tree.

The Margin of a leaf is either entire, indented, bordered, or rolled. The differences are characterised by the following terms:

Folium *aculeato-ciliatum*, when the hairs on a leaf are stiff and bristle-like.

—— *acutè-crenatum*, when the leaf is acutely notched.

—— *æqualiter-dentatum*, equally toothed, when the teeth are regularly set.

—— *æqualiter-serratum*, when the serratures are of the same length and regularly placed.

—— *argutè-serratum*, when the margin is sharply serrated.

—— *cartilagineum*, when the leaf is bordered with an elastic cartilaginous substance, as in *Saxifraga callosa*.

Folium *ciliatum*, fringed, when the margin is bordered with soft parallel hairs like eye-lashes, as in *Galium cruciatum*.

—— *corneum*, horny, when a leaf resembles the cartilaginous, but is harder and less elastic.

—— *crenatum*, notched or crenate, when the teeth are blunt and rounded, and do not incline towards either extremity of the leaf, as in *Glechoma hederacea*.

—— *crenulatum*, when the crenatures are very shallow, but perfect.

—— *crispum*, when the margin is curled and twisted, as in *Malva crispa* and *Potamogeton crispum*.

—— *dentato-crenatum*, sharply crenated, when the notches are a little pointed, as in *Saxifraga Geum*.

—— *dentatum*, toothed, when the margin of a leaf has dentations of its own substance projecting horizontally, as in *Atriplex laciniata* and *Hypochœris maculata*, &c.

—— *duplicato-crenatum*, doubly crenate, when the crenatures themselves are again notched, as is exemplified in the two British species of *Salvia*, *S. pratensis* and *verbenaca*.

—— *duplicato-dentatum*, doubly dentated, when the margin has a double set of teeth.

—— *duplicato-serratum*, doubly-serrated, when small serratures are intermixed with larger ones, as in *Campanula Trachelium*.

—— *erosum*, when a sinuate leaf has other small sinuses upon the margin, which give it the appearance of being gnawed or eaten by insects, as in *Senecio squalidus*.

—— *glanduloso-ciliatum*, when the glands on the margin are supported upon hairs.

—— *glandulosum*, glandular, when the margin is studded with either opaque or semi-transparent bodies, exuding some kind of fluid, as in *Hypericum montanum*.

Folium *inæqualiter-dentatum*, when the teeth are irregularly set on the margin.

—— *inæqualiter-serratum*, when the serratures are unequal, and irregularly placed.

—— *inciso-crenatum*, when a leaf is deeply cut and notched.

—— *indivisum*. Vide Integerrimum.

—— *inerme*, unarmed, opposed to spinous.

—— *integerrimum*, an entire leaf, when it is free from every incision or indentation, as in *Daphne Laureola*, *Polygala vulgaris*, and also the Orchis and Lily tribes.

—— *involutum*, involute, when the margin is rolled upon the upper surface, as in *Pinguicula vulgaris*.

—— *laceratum*, lacerated or torn, when the margin is cut into irregular segments, so that the leaf has the appearance of being torn.

—— *obsoletè-dentatum*, when the teeth are obscure, so as scarcely to be seen.

—— *obtusè-crenatum*, when a leaf is obtusely notched.

—— *profundè-dentatum*, when the teeth extend deep down the margin.

—— *profundè-serratum*, when the margin of a leaf has deep serratures.

—— *revolutum*, revolute, when the margin is rolled upon the under surface of the leaf, as in *Andromeda polifolia*.

—— *serratum*, serrated, when the teeth are all pointing towards the apex like a saw, as in *Comarum palustre*, and *Senecio paludosus*; as also in the genera *Urtica* and *Rosa*, &c.

—— *serrulatum*, when the serratures are very minute or not distinct, as in *Polygonum amphibium* and *Empleurum serrulatum*.

—— *sinuatum*, a leaf is termed sinuate when it is cut into scollops, as in *Quercus Robur* and *Statice sinuata*.

Folium *spinosum*, spinous, when the margin is beset with sharp, rigid spines, as in *Carduus lanceolatus, Onopordum Acanthium*, &c.

—— *undulatum*, undulated, when the margin near the disk is so much expanded as to constitute a wavy appearance, as in *Reseda lutea*.

Regarding the Surface of a leaf, it comprehends both the upper and under part of a leaf, to which the following terms are appropriate, as

Folium *aculeatum*, when, instead of being herbaceous, the spines on the surface are hard and pungent.

—— *asperum*, rough, when the scabrities is more visible, and scattered over the surface, as in *Symphytum asperrimum*.

—— *avenium*, veinless, when there are no apparent veins.

—— *barbatum*, bearded, when there are long parallel tufts of hairs crowded together; these generally terminate the leaves, as in *Mesembryanthemum barbatum*.

—— *bullatum*, blistered, when the surface is raised above the veins, so as to appear like blisters. This is a greater degree than *rugosum*, and is exemplified in *Brassica oleracea*.

—— *canaliculatum*, channelled, when a longitudinal furrow runs through the surface of the leaf, as in *Fucus canaliculatus, Plantago maritima*, &c.

—— *carinatum*, keeled, when the midrib on the under surface projects so as to resemble the keel of a boat, as in *Narcissus biflorus, Allium carinatum*, &c.

—— *concavum*, contrary to *convex*, as is exemplified in *Cyamus Nelumbo*.

—— *convexum*, convex, when the upper surface is raised, and the lower one forms an arch beneath it.

—— *echinatum*, prickly, when the spines, although herbaceous, have stiff joints.

Folium *farinosum*, mealy, when covered with dry powder of a mealy substance, as in *Atriplex laciniata* and *Primula farinosa*.

—— *favosum*. Vide Lacunosum.

—— *floccosum*, tufted, when hairs upon the surface are soft and matted, and easily detached in small tufts.

—— *glabrum*, smooth, when there are no hairs, nor any kind of pubescence upon the surface, as in the genus *Orchis*, &c.

—— *glandulosum*, glandular, when there are tubercles raised above the surface of the leaf, as in *Salix pentandria*.

—— *glutinosum*. Vide Viscidum.

—— *hirsutum*, hairy, when covered with a soft hair-like substance, as in *Epilobium hirsutum*.

—— *hispidum*, hispid, when the surface is covered with short stiff hairs, as in *Echium vulgare*, &c.

—— *incanum*. Vide Pruinatum.

—— *lacunosum*, pitted, when the surface of a leaf is depressed between the veins; contrary to *rugosum*.

—— *læve*. Vide Planum.

—— *lanatum*, woolly, when hairs are matted together, but each can be distinguished, as in *Stachys lanata*.

—— *lucidum*, bright, glossy, when the surface has the appearance of being varnished; this is a higher degree than *nitidum*, as in the *Potamogeton lucens*, *Tamus communis*, and *Geranium lucidum*.

—— *muricatum*, muricated, when the surface is covered with short herbaceous spines.

—— *nitidum*, shining, when there is a polish upon the surface, as in *Vinca major*.

—— *nudum*. Vide glabrum.

—— *papillosum*, pustular or vesicular, when the surface is covered with soft tubercles containing an aqueous fluid, as in *Mesembryanthemum crystallinum*.

Folium *perforatum.* Vide Punctatum.

—— *pilosum,* hairy, when the surface is covered with soft distinct hairs, as in *Juncus pilosus, campestris,* &c.

—— *planum,* when the surface of a leaf is plain and even, without any inequalities, as in *Statice Limonium.*

—— *plicatum,* plaited, or folded like a fan, as in *Malva rotundifolia* and *Alchemilla vulgaris.*

—— *pruinosum,* hoary, when the surface is covered with a fine waxy powder, easily rubbed off, as in *Cistus incanus, Draba incana,* &c.

—— *pulveratus.* Vide Farinosus.

—— *punctatum,* dotted, which is either superficially, as in *Rhododendron punctatum,* or penetrating the substance of the leaf, as in *Hypericum perforatum.*

—— *rugosum,* rugged; when the veins are so contracted that the surface appears considerably above them, as in *Primula vulgaris, Salvia officinalis,* and *Teucrium Scorodonia.*

—— *scabrum,* scabrous, when the surface is covered with tubercles, which are more easily discovered with the finger than with the eye, as in *Trifolium scabrum.*

—— *sericeum,* silky; when the surface is covered with very soft hairs, pressing close, giving the leaf a satin-like lustre, as in *Artemisia sericea.*

—— *setosum,* bristly, when the surface is covered with short distant hairs, resembling bristles.

—— *stellatum,* starred, when hairs or spines are radiated like stars, as in *Alyssum montanum.*

—— *striatum,* striated, or streaked, when marked with fine parallel lines, as in *Œnanthe fistulosa.*

—— *strigosum,* strigose, when the bristles are firm, and are placed upon papillæ, as in the genus *Cactus.*

—— *sulcatum,* furrowed, when there are deep longitudinal depressions extending along the surface, as in *Smyrnium Olusatrum,* &c.

Folium *tomentosum*, downy, when covered with soft hairs, so matted together that individual hairs are not to be distinguished, as in *Cerastium tomentosum*.

—— *umbilicatum*, navel-like, when a leaf is peltate, and the surface depressed in the centre, as in *Cotyledon umbilicus*.

—— *verrucosum*, warty, when there are tubercles which have a warty appearance, as in *Euonymus verrucosus*.

—— *villosum*, shaggy, or velvety, when covered with hairs which give the leaf a velvety appearance, as in *Stachys mollissima* and *Hieracium villosum*.

—— *viscidum*, viscid, when the surface of a leaf is clammy, as in *Cistus glutinosus*.

In regard to the Colour of leaves, we find them almost universally green, and the upper surface of a deeper colour than the under one: the different gradations of colour are as follows, viz.

Folium *coloratum*, coloured, when a leaf has other colours mixed with green, as in *Pulmonaria officinalis*.

—— *dilutum*, diluted.

—— *discolor*, when the upper surface is of a different colour from that of the under, as in *Tradescantia discolor; Begonia Evansiana*, &c.

—— *glaucum*, sea-green, when there is an appearance of a bluish-green mixture, as in *Juncus glaucus, Brassica oleracea*, &c.

—— *intensè-sordidum*, intensely sordid; the extreme degree of sordidum.

—— *maculatum*, when a leaf is full of spots and blotches, as in *Lamium maculatum* and *Hypochœris maculata*, &c.

—— *pallidum*, a pale green.

—— *saturatum*, when it is of a full deep colour.

Folium *sordidum*, when the appearance is of a dirty green colour.

—— *variegatum*, variegated, which is a kind of disease, as in *Arundo colorata*, and varieties of *Ilex Aquifolium*.

—— *zonatum*, zoned, when the colours are displayed in curved lines.

The vessels which are formed into fasciculi, and are spread in various directions through the substance of the leaf, are termed Nerves and Veins. The larger fasciculi are termed Nerves and Ribs, and the smaller Veins, as follows:

Folium *avenium*, veinless, which term is applied to a leaf that is destitute of veins.

—— *basi-trinerve*, when one large fasciculus passes off on each side of the midrib, at the base of the expansion, dividing and subdividing as it proceeds, as in *Helianthus annuus* and *Arctium Lappa*.

—— *costatum*, ribbed, when lines proceed from the midrid, nearly straight towards the margin, which are parallel to each other, as in the genus *Rosa*.

—— *enervium*, nerveless; this term is applied to a leaf which is destitute of nerves.

—— *fenestratum*, windowed, when there are longitudinal fasciculi, decussated by transverse bands so as to form net-work, as in *Ilex Aquifolium*.

—— *multinerve*, when the number on each side of the midrib exceeds four.

—— *multiplinerve, quintuplinerve, triplinerve*, when there are fasciculi branching off from the main nerve, not arising from the base, but a little above, so as to leave part of the expansion of the leaf below them, as in *Laurus Cinnamomum, Blakea triplinervis*, &c.

—— *nervosum*, a leaf is nerved, when the larger fasciculi run in slightly curved lines from the base to the

apex, as in *Cypripedium Calceolus* and *Stratiotes aloides.*

Folium *novemnerve,* nine-nerved, when there are four longitudinal fasciculi on each side of the midrib.

—— *quinquenerve,* when there are two longitudinal fasciculi on each side of the midrib.

—— *quintuplinerve.* Vide Multinerve.

—— *reticulato-venosum,* when the veins decussate each other, so as to form a net-work, as in *Salix cinerea, reticulata,* &c.

—— *septemnerve,* seven-nerved, when there are three fasciculi on each side of the midrib.

—— *trinerve,* three-nerved, when there is one longitudinal fasciculus of vessels on each side of the midrib, including the midrib as one.

—— *triplinerve.* Vide Multinerve.

—— *uninerve,* single-nerved.

—— *venoso-nervosum,* when nerves pass into veins.

—— *venosum,* veined; when there are small branches of vessels dividing and subdividing, so as to form a net-work over the surface of the leaf, as in *Pyrus terminalis,* &c.

Regarding the Substance of a leaf, it is

Folium *carnosum,* fleshy, when a leaf is juicy, but of a firm, cellular texture, as in *Sempervivum tectorum, Sedum acre,* &c.

—— *chartaceum,* paper-like, when a membranaceous leaf is dry and sapless, as in *Dracæna terminalis.*

—— *coriaceum,* leathery, when a leaf is thick, tough, and elastic, as in *Viscum album.*

—— *membranaceum,* membranaceous, when a leaf is thin and pliable, as in *Aristolochia Sipho, Rubus odoratus,* and many trees and shrubs.

—— *papyraceum.* Vide Chartaceum.

Folium *pulposum*, pulpy, when filled with a tenacious substance between the two surfaces: this is to be distinguished from *carnosum*, which is firm and fleshy.

—— *rigidum*, rigid, when it is hard, with elasticity, as in *Ruscus aculeatus* and *Pinus sylvestris*.

—— *scariosum*, scariose, when a membranous leaf is dry, apparently, and somewhat translucent.

—— *succulentum*, succulent, when the consistence of a a leaf is of a juicy and pulpy nature, as in *Mesembryanthemum echinatum*, &c.

Of Compound leaves.—A compound leaf consists of a number of leaflets, connected by articulations, either directly, or indirectly upon a common footstalk. Compound leaves are of three kinds:—*composita*, compound; *decomposita*, doubly compound; *supradecomposita*, more than doubly compound.

Folium *abruptè-pinnatum*, a pinnate leaf, which has not an odd leaflet or tendril at the end of the petiole.

—— *alternatim-pinnatum*, alternately pinnate, when the leaflets are placed one above another in regular succession along the petiole, as in *Vicia sativa*.

—— *articulatè-pinnatum*, when the petiole is jointed between each pair of leaflets, as in *Weinmannia pinnata*.

—— *articulatum*. Vide Vertebratum.

—— *biconjugatum*. Vide Bigeminatum.

—— *bigeminatum*, twice paired, when a single pair of leaflets are supported by a smaller petiole on each side of the common petiole, and opposite each other, as in *Mimosa Unguis-cati*.

—— *bijugum*, two-yoked, when there are two pairs of leaflets upon the common footstalk; also *trijugum*, *quadrijugum*, *quinquejugum*, and *multijugum*, are employed to determine specific characters.

—— *bipinnatum*, doubly pinnate, when the secondary

petioles are arranged in pairs on the common petiole and each secondary petiole displays the character o a simply pinnate leaf, as in some species of Ferns.

Folium *biternatum*, doubly ternate, when the commor footstalk supports three lesser ones, and each of thes support three leaflets, as in the genus *Ægopodium*.

—— *cirroso-pinnatum*, when a pinnate leaf ends in a tendril, as in the genera *Vicia*, *Lathyrus*, &c.

—— *compositum*, a simply compound leaf consists of a petiole, which supports two or more leaflets, which are sessile.

—— *conjugato-pinnatum*, when a common petiole supports a single pair of secondary petioles, each bearing pinnate leaflets, as in *Mimosa purpurea*.

—— *conjugatum*, yoked, when there is only one pair o leaflets on a common footstalk, placed opposite each other, as in the genus *Zygophyllum*.

—— *decompositum*, a doubly compound leaf is when the common petiole is divided into secondary and smaller petioles, which support the leaflets, as in *Fumaria claviculata*.

—— *decursivè-pinnatum*, decurrently pinnate, when the pinnæ are supported on a winged petiole, as in *Eryngium campestre* and *Potentilla fruticosa*.

—— *digitatum*, fingered, when there are several, most commonly five, leaflets proceeding from the end of a common footstalk, as in some of the genus *Potentilla*. The leaves of the Horse-chesnut are termed digitate, although there are more than five leaflets.

—— *digitato-pinnatum*, a digitate-pinnate leaf is composed of leaflets proceeding from the top of a common footstalk, and those leaflets are pinnate, as in *Mimosa pudica*.

—— *duplicato-ternatum*. Vide Biternatum.

—— *heterophyllum*; this term is applied to such plants

as have a diversity of form in their leaves, such as the lower leaves being short, wedge-shaped, emarginate, and mucronate; the upper ones long, linear-lanceolate, acute, and entire, as in *Euphorbia heterophylla.*

Folium *impari-pinnatum,* when there is a single leaflet at the end of the petiole, as in *Polemonium cœruleum, Fraxinus excelsior,* &c.

——— *interruptè-pinnatum,* when the leaflets are alternately large and small on both sides of the petiole, as in *Spiræa Filipendula* and *Potentilla Anserina.*

——— *lyrato-pinnatum,* when the terminal leaflet is much longer than the rest, as in *Geum rivale.*

——— *multifoliatum,* when there are more than seven, proceeding in the same manner as a digitate leaf.

——— *multijugum,* when there are many pairs.

——— *oppositè-pinnatum,* when the leaflets are opposite each other, in pairs, as in *Sium angustifolium* and *Hedysarum Onobrychis,* &c.

——— *pedatum,* a pedate leaf is when the common petiole is divided into branches at its summit, each of which support two or more lateral leaflets upon their anterior edge, as in *Helleborus niger.*

——— *pinnatum foliolis decrescentibus,* when the leaflets gradually diminish in size from the base to the apex of the leaf, as in *Vicia sepium.*

——— *quadrijugum,* when there are four pairs.

——— *quadrinatum,* quadrinate, when a compound leaf consists of four leaflets, placed in opposite directions, as in *Paris quadrifolia,* &c.

——— *quinatum,* when a compound leaf is composed of five leaflets, as *Æsculus Pavia.*

——— *quinquejugum,* when there are five pairs.

——— *sejugum,* when there are six pairs.

——— *supradecompositum,* thrice compound, comprehends

those in which the common petiole supports secondary petioles, and those in their turn support ternary ones, as in *Torilis Anthriscus.*

Folium *tergeminatum,* thrice-paired, as in *Mimosa tergeminata.*

—— *ternatum,* ternate, a compound leaf, consisting of three leaflets, attached to the end of the petiole, as in the genus *Trifolium.*

—— *ternato-pinnatum,* ternate-pinnate, when the common petiole supports on its apex three pinnate leaflets as in the genus *Hoffmanseggia.*

—— *trifoliatum.* Vide Ternatum.

—— *trijugum,* when there are three pairs.

—— *tripinnatum.* Vide Triplicato-pinnatum.

—— *triplicato-pinnatum,* triply pinnate, when there are on the side of the common petiole secondary petioles supporting ternary ones, as in *Daucus Carota,* &c.

—— *triplicato-ternatum,* triply ternate, when the common petiole supports three secondary ones, each secondary one supports three ternary petioles, and each of these supports three leaflets, as in *Fumaria lutea.*

—— *triternatum.* Vide Triplicato-ternatum.

—— *umbellatum,* when numerous leaflets are so arranged as to form the figure of a parasol, as in many species in the genus *Lupinus.*

—— *vertebratum,* a kind of compound leaf, which consists of several leaflets growing out of each other, or articulated to each other at their summit, as in *Fagara Tragodes.*

—— *verticillato-pinnatum,* when the leaflets are cut into fine segments, and embracing the footstalk in whorls, as in *Sium verticillatum.*

Folliculus (dimin. from *follis*), a follicle or bag; a species of seed-vessel with one valve and one cell, opening on one side lengthways, and with the seeds loose

within it. It is exemplified in the genera *Vinca*, *Pæonia*, &c.

Fornicatus (from *fornix*), arched or vaulted.

Fornix, an *arch* or *vault*, a term applied to the upper lip of some ringent flowers; also to the upper petal of the genus *Aconitum*.

Fovea (from *fodio*, to dig), a pit or cavity in a corolla, sometimes containing honey.

Fragilis (from *frango*, to break), brittle, easy to be broken.

Fragrans (from *fragro*), fragrant, sweet smelling.

Frequens, frequent, common.

Frondescentia (from *frondesco*, to wax green), a term expressing the time of the year when plants unfold their leaves, or the circumstance of their becoming green.

Frondosus (from *frondeo*), applied either to a stem which is set with leaves, or to a proliferous flower.

Frons, a frond, a term signifying that the stem, root and leaf are all in one, and in which fructification is generally produced on the back, as in the natural families *Filices* and *Algæ*. The following are the varieties, viz.

Frons *bipinnata*, when the frond has the appearance of a doubly pinnate leaf, as in *Aspidium Filix mas* and *fœmina*.

—— *bipinnatifida*, when in a pinnated frond the leaflets are cleft half-way down.

—— *flabelliformis*, fan-shaped, when at the apex of the stipes there are a number of leaves spread out in a circular form, or the foliaceous substance is a round flat expansion, having many regular folds. Frequently between the segments or leaves there arises a filiform body, as in the genera *Chamærops* and *Borassus*.

—— *fructicans*, fertile, applied to the fruit-bearing frond of the *Blechnum boreale*, &c.

Frons *peltata*, peltate, when at the end of the stipe there is a flat foliaceous substance, which is perfectly close, so that there is no section even in the base, as *Corypha umbraculifera*.

—— *pinnata*, when the frond has the appearance of a pinnate leaf, as in *Blechnum boreale*.

—— *quadruplicato-pinnata*, when a pinnate stipe has at each branch a trebly pinnate leaf.

—— *quintuplicato-pinnata*, when a pinnate stipe has at each branch a quadruply pinnate leaf.

—— *sterilis*, applied to a frond which bears no fruit, as in the sterile frond of *Blechnum boreale*, &c.

Fructicans, fruitful.

Fructificatio (from *fructus*, fruit, and *facio*, to make), a term expressing the time of the year at which the fruit or seed arrives at maturity.

Fructus (from *fruor*, to enjoy), fruit, the seed, which, after it becomes ripe, falls to the earth, and produces a new plant.

Frustranea, the third order of the class *Syngenesia*, containing compound flowers which have perfect florets in the disk producing seed, and sterile ones in the ray producing no seed, as in the genus *Centaurea*.

Frutescens (from *frutex*, a shrub), a term applied to a stem which is naturally herbaceous, but becomes shrubby.

Frutex, a shrub, the symbol of which is ♄.

Fruticosus (from *fruticor*), shrubby.

Fugacissimus (super. of *fugax*), of very short duration.

Fugax (from *fuga*, flight), fugacious, of short duration, applied to the corolla of some plants, which falls off soon after expansion.

Fulcratus (from *fulcrum*, a prop), propped. Vide Caulis.

Fulcrum (from *fulcio*, to bear up), a supporter or prop,

serving to defend plants from external injury. There are seven kinds of fulcra, viz.

Aculeus, a prickle.
Bractea, a floral leaf.
Cirrus, a tendril.
Glandula, a gland.
Pilus, a hair.
Spina, a thorn.
Stipula, a leafy appendage to the proper leaves or to their footstalks.

Fuliginosus (from *fuligo*, à *fumo*, to smoke), smoky or sooty.

Fulvus, tawny.

Fundus, applied the same as *collum*.

Fungi, the fourth order of the class Cryptogamia, according to the Linnæan system; in the present arrangement, the twelfth. This order contains plants which are wholly destitute of leaves: they are of a coriaceous, cork-like or fleshy substance, growing on the ground, on trees, and on rotten wood, also on the stems of plants; scarcely ever aquatic. The genus *Agaricus* affords the most conspicuous example. This is an order at present in much confusion.

Furca, a fork.

Furcatus (from *furca*), forked. Vide Caulis.

Fuscus, reddish-brown.

Fusiformis (from *fusus*, a spindle, and *forma*, a resemblance), spindle-shaped. Vide Radix.

Fusinus (from *fusus*, a spindle), a cylinder, which tapers at both ends.

G

Galbulus, a species of swelled bractea, found in the genera *Cupressus*, *Thuja*, and also in *Juniperus*.

Galea (from γαλη, *felis*), the helmet or upper lip of a

gaping or ringent corolla: it is exemplified in the genus *Orchis*.

Galeatus (from *galea*), helmeted, when the lip of a ringent corolla is shaped like a helmet.

Gallæ, galls, a disease occasioned by insects depositing their eggs in small apertures of a plant. In the *Quercus Robur*, we find these galls as large as walnuts; there is also a red berry-like excrescence upon the leaves. In the *Rosa canina* this gall is of a moss-like nature, and has in its interior a quantity of insects.

Gangræna (from γαγγραινα, à γραω, *to feed upon*), gangrene, a disease in plants; the parts which are affected become soft and moist, and fall off.

Genera (plur. of *genus*), subdivisions of plants, comprehending an assemblage of species similar in their parts of fructification.

Generatio (from γινομαι, *pario*), the generation of plants.

Genericus (from *genero*), the generic description. Vide Character.

Geniculatus (from *geniculo*), bent like the knee. Vide Caulis.

Geniculum (from *genu*), the knee-joint: it also signifies a knot or joint, which is not bent.

Genitalia (from *geno*, à γινω); by this appellation the anthers and stigma are denominated, each performing their separate functions.

Genatura (from *geno*, à γινω), the pollen, which is discharged, when ripe, from the anther upon the stigma, for the purpose of maturing the seed.

Gentes (from *geno*), tribes of the vegetable kingdom.

Genus (from γενος); by this we understand a subdivision of plants in the same class and order, agreeing in all their parts of fructification.

Germen, the seed-bud, the part where the seeds are perfected, which is placed at the base of the pistil. The following are the different kinds, viz.

Germen *globosum*, globose, as in *Rosa cinnamomea*.

—— *inferum*, inferior, when the germen is situated beneath the calyx, or, when this is wanting, under the corolla.

Note.—When the Germen is inferior, it follows, as a general law, first, that the Calyx is monophyllous, and, secondly, that the Pistil is single. The first is plain, from the fact of the calyx being in contact with the germen, at every point of its surface; the second, it will appear on reflection, is a necessary consequence of the former, since it is obvious, that if there be more than one pistil, the whole parietes of these organs cannot be in contact with the calyx; for if they were so in contact, the calyx would cease to be monophyllous.—Richard, *Nouveaux Elémens de Botanique*.

—— *oblongum*, oblong, as in *Stellaria biflora*.

—— *ovatum*, egg-shaped, as in *Rosa canina*.

—— *pedicellatum*, pedicellate, when furnished with a footstalk, as in the genus *Euphorbia*.

—— *sessile*, when it is immediately placed upon the receptacle, without having a footstalk.

—— *superum*, superior, when it is encircled by the calyx, or, when the calyx is not present, by the other parts of the flower.

Germinatio (from *germino*, to bud), germination, the time at which seeds commence vegetation.

Gibbus, a gibbous leaf is when it is swelled with excess of pulp. Vide Folium. When applied to the calyx, it means that it is swelled out at the bottom, as is seen in the classes *Tetradynamia* and *Diadelphia*.

Giganteus (from γιγαντιαῖος, à γίγας, *a gians*), tall and straight, as in *Festuca gigantea.*

Gilvus, flesh-coloured, or brick-coloured.

Glaber (from γλαφυρός, à γλάφω), smooth, opposed to scabrous: it is applied both to the stem and leaf.

Gladiatus (from *gladius*), a gladiate or sword-shaped pod.

Glandula (dimin. from *glans*), a gland, a secretory vessel, usually situated on the leaves, petioles, peduncles, or stipules of plants. The Acorn, which is the seed of the genus *Quercus*, is usually termed a gland.

Glandulatio (from *glandula*), the situation and structure of a gland.

Glanduliferus (from *glandula*, a gland, and *fero*, to bear), gland-bearing. Vide Petiolus.

Glanduloso-ciliatum. Vide Folium.

Glandulosus, glandular. Vide Folium.

Glareosus (from *glarea*, gravel); when this term occurs in the account of a plant, it indicates that it grows in a gravelly soil.

Glaucescens (dimin. from *glaucus*), inclining to sea-green, a gradation somewhat weaker than *glaucus.*

Glaucophyllus (from γλαυκος, *glaucus*, and φυλλον, *folium*), a mealy powder on the surface of a plant, of a bluish-green colour.

Glaucus (from γλαυκος, *sea-green*), a mixture of blue and green, as in *Juncus glaucus*, &c.

Globosus (from *globus*), a globular, spherical body, which term is applied to the root, the flower, and to the corolla itself, when formed into a spherical head; also to the receptacle, germen, and seed.

Globularis (dimin. from *globus*), a species of glandular roughness, scarcely visible to the naked eye, the small grains of which are globular.

Glochis (from γλωχις, *cuspis teli*), a species of pubescence

on plants, which has reflexed branches at the points; distinguished from *hamus* by its points not being bent.

Glomeratus (from *glomeror*), when there is an irregular collection of flowers into a spike.

Glomerulus (dimin. from *glomus*), a glomerule; a small tuft or *capitulum*, generally found in the axilla of the peduncle.

Gluma (from *glubendo*), the glume. It is a species of calyx peculiar to Grasses and Carices; in common language it is called the husk. The following are the varieties, viz.

Gluma *aristata*, when the glume is furnished with an awn, as in the genera *Bromus*, *Hordeum*, *Avena*, &c.

—— *biflora*, when it contains two flowers, as in *Rotbollia biflora*.

—— *bivalvis*, when there are two valves, as in the genus *Triticum*, &c.

—— *ciliata*, fringed, as in *Bromus ciliatus*.

—— *colorata*, coloured, when it is of any other colour than green, as in *Melica cœrulea*, *Panicum coloratum*, &c.

—— *glabra*, smooth, having an even surface, as in *Melica nutans*.

—— *hispida*, hispid, rough with hairs, as in *Rotbollia hispida*.

—— *multiflora*, when there are more than three flowers enclosed within the calyx, as in *Bromus multiflorus*, &c.

—— *multivalvis*, when there are more than three valves, as in *Uniola maritima*.

—— *mutica*, awnless, or destitute of an awn, as in most Grasses.

—— *striata*, striated or streaked, as in *Holcus avenaceus*.

—— *triflora*, when it contains three flowers, as in *Festuca triflora*.

Gluma *trivalvis*, when the calyx consists of three valves as in *Panicum milium* (*miliaceum*, L.).

—— *uniflora*, having but one flower, as in *Melica uniflora*.

—— *univalvis*, having but one valve, as in the genus *Lolium*.

—— *villosa*, villose, shaggy, as in *Holcus lanatus*.

Glumosus (from *gluma*, a husk), glumose. Vide Flos.

Gluten (from *gelo*, to congeal), glue, a viscid substance which occurs on the surface of some plants.

Glutinositas (from *gluten*), glutinousness.

Glutinosus (from *glutino*), a glutinous leaf. Vide Folium.

Gnomonicus (from *gnomon*, ὁ γνώμων, a *dial*), dial-like, having the scape inflected at a right angle, as in the genus *Guettarda*; or having the radicle joined at an obtuse angle with the cotyledons, as in the genera *Persicaria*, *Ruta*, &c.

Gongylus, a simple, leafless, somewhat globular, solid bud, remaining within the bark of the parent plant until it is consumed by age.

Gossypinus (from *gossypium*, the cotton-tree), cottony.

Gramina, the tribe of Grasses.

Gramineus (from *gramen*), grass-like.

Graminifoliæ (from *gramen*, grass, and *folium*, a leaf), plants which bear grass-like leaves.

Granatum (from *granum*, a grain), a species of pericarp which is mentioned by Scopoli, formed of a double involucre, which does not open; one cork-like or coriaceous, the other succulent, as in the genus *Punica*.

Grandiflorus (from *grandis* and *flos*), large-flowered, when the corolla grows to an unusual size, which term constitutes a specific name, as *Mespilus grandiflora*.

Graniferus (from *granum*, a grain, and *fero*, to bear) grain-bearing.

Granulatus, a granulated or bead root. Vide Bulbus.

Granulum (dimin. from *granum*), a small grain.

Granum, a grain, a small kernel.

Griseus, a grey colour.

Grossificatio (from *grossus*, i. e. *crassus*), the precise time after florescence in which the germen becomes enlarged.

Gruinales (from *grus*, a crane), a term to denote those plants which have seed-vessels in the form of a crane's bill, as is exemplified in the genera *Geranium* and *Erodium*.

Grumosus (from *grumo*), grumous, when the surface is covered with small irregular molecules cohering to each other, as in *Hedera Helix* and *Cocos nucifera*.

Gymnobasis (from γυμνος, *nudus*, and βασις, *basis*), a term used for a swelled receptacle.

Gymnoscarpus (from γυμνος, *nudus*, and καρπος, *fructus*), such plants as bear their seeds within a dilated membrane are called *gymnoscarpi*. This is exemplified in *Fraxinus excelsior, Ulmus campestris, Acer campestris*, and some others.

Gymnospermia (from γυμνος, *nudus*, and σπερμα, *semen*), the first order of the class Didynamia according to the Linnean system, containing plants which have perfect flowers, and produce their seeds naked.

Gynandria (from γυνη, *mulier*, and ανηρ, *vir*), the twentieth class of the Linnean system, containing plants which have perfect flowers, and which have their stamens placed upon the pistil.

Gynandrus (from γυνη, *mulier*, and ανηρ, *vir*); when the pistil comes to maturity sooner than the stamens it is called gynandrous dichogamy.

Gynizus (properly gynixus, from γυνη), a name given by Richard *sen.* to the stigma of the *Orchideæ*.

Gyrosus (from γυρος, *curvus*), this term is used in respect

to the level surface which occurs in the fruit of some Lichens.

H

Habitatio (from *habito*, to dwell), the habitation or native place of plants; generally expressed by the word *habitat*.

Habitualis (from *habito*), character; the character of a plant its port or habit.

Habitus (from *habeo*), the habit or external appearance of a plant is defined by Linnæus to be the agreement of plants of the same genus, or natural order, in their number of seminal leaves, the nature and form of the root, the situation of the leaves and branches, &c.

Hæmorrhagia (from αἷμα, *sanguis*, blood, and ῥηγνυμι, *rumpo*, to break out), a disease in which the sap spontaneously, or in consequence of a wound, flows abundantly from the plant.

Halonatus (from ἁλος, *clavus*). This term is sometimes used to express a circle which frequently surrounds a spot upon a leaf.

Hamosus (from *hamus*), hooked, applied to a bristle which is curved at the point.

Hamus (from ἁμη, *falx*, a sickle), a hook; a species of pubescence of a bristly nature, having a curved point, which covers the surface of some plants.

Hastatus (from *hasta*, a spear or lance), halbert-shaped.

Helvolus (from *helvus*, pale red), yellow inclining to a red.

Hemisphæricus (from ἡμι, *half*, and σφαιρα, a *sphere*), hemispherical, applied to the calyx or nectary. Vide Nectarium.

Hepaticus (from ἡπαρ, the *liver*), a liver colour, as in some of the *Fungi*.

Hepaticæ (from ἡπαρ, the *liver*), the seventh natural order of the class Cryptogamia, according to the recent arrangement; the third of former authors, removed from *Algæ* of Linnæus. Plants nearly allied to the Mosses, of a highly cellular structure, reviving by moisture after having been dried; the leaves are frequently divided, but never nerved. Fructification uniform, or of two kinds. Capsules destitute of a lid; when young covered with a calyptra, often supported on a footstalk which bursts the calyptra irregularly above it, and generally divided into two or four equal valves. Seeds mixed with spiral filaments.

Heptagonus, applied to a stem which has seven angles. Vide Caulis.

Heptagynia (from ἑπτα, *septem*, and γυνη, *uxor*), the seventh order of the Linnean system, containing such plants as are perfect, and have seven pistils.

Heptandria (from ἑπτα, *septem*, and ανηρ, *vir*), the seventh class of the Linnean system, containing plants with perfect flowers, which have seven stamens.

Herba, an herb. That portion of a vegetable which rises from the root, and is terminated by its fructification. It comprehends stem, leaves, props, and buds.

Herbaceus (from *herba*), herbaceous, applied to stems and plants which perish annually down to the root; contrary to woody.

Herbarium (from *herbarius*, belonging to herbs): the collection, preservation, and arrangement of plants constitutes an *herbarium* or *hortus siccus*.

Hermaphroditus (from Ἑρμης, *Mercury*, and Αφροδίτη, *Venus*). Vide Flos.

Heterogenus (from ἑτερος, *alter*, and γενος, *genus*), of another kind.

Heteromallus (from ἑτερος, *alter*, and μαλλος, *vellus*), applied

to the leaves of mosses; the same as *secundus* in phenogamous plants.

Heterophyllus (from ἑτερος, *alter*, and φυλλον, *folium*); in monocotyledonous plants it is applied to the cotyledon which has a different form to the succeeding leaves, as in the genera *Asarum*, *Paris*, &c. It is also applied to plants which have a diversity of form in their leaves, to some of which it gives a specific name. Vide Folium.

Hexagonus (from ἑξ, *sex*, and γωνια, *angulus*), applied to a stem with six angles. Vide Caulis.

Hexagynia (from ἑξ, *sex*, and γυνη, *uxor*), the sixth order of the Linnean system, containing plants with perfect flowers, which have six pistils.

Hexandria (from ἑξ, *sex*, and ανηρ, *vir*), the sixth class of the Linnean system, containing plants which have perfect flowers with six stamens.

Hexapetalus (from ἑξ, *sex*, and πετταλον, *petalum*), applied to a corolla with six petals. Vide Corolla.

Hexaphyllus (from ἑξ, *sex*, and φυλλον, *folium*), applied to a calyx with six leaves.

Hians (from *hio*, χαω, to *gape*), gaping; as in the monopetalous, ringent corollas of the class Didynamia.

Hilum, the external mark or scar of a seed, whereby it is fixed by the pericarp to the umbilical cord. This is most conspicuous in Leguminous plants.

Hircinus (from *hircus*, a goat), having the smell of a goat.

Hircosus, the same as *hircinus*.

Hirsutus (from *hirtus*), rough with hairs, shaggy; it is applied to the stem, leaf, and calyx.

Hirtus (contract. from *hirsutus*), when there are stiff rough hairs, rigid, as in *Carex hirta*, &c.

Hispidus, hispid, when the surface is covered with bristle-like hairs. Vide Folium.

Homogenus (from ὁμος, *similis*, and γενος, *genus*), homogeneal, such as are of the same kind and nature.

Homomallus (from ὁμος, *similis*, and μαλλος, *vellus*), opposed to *heteromallus*.

Homophyllus (from ὁμος, *similis*, and φυλλον, *folium*). This term is used in monocotyledonous plants to imply that the cotyledon appears in the form of the succeeding leaves, as in the genera *Canna*, *Arum*, &c.

Horarius (from *hora*), a term applied to such flowers as appear only for one hour.

Hornus, leaves and shoots of the present year are called *horni*. This term was formerly applied to the involucres of the *Equisetaceæ*, each of which was called a horn-like indusium.

Horizontalis (from ὁριζων), applied to leaves, root, &c. which spread in the greatest degree. Vide Folium, &c.

Horologium (from ὡρα and λογος): some flowers expanding and closing at certain hours of the day form a horologium or natural clock.

Hortus siccus (from *hortus*, a garden, and *siccus*, dry). See Herbarium.

Hostorium (from *hostio*, to requite): the *hostoria* are absorbent warts which supply the place of roots in parasitic plants.

Humifusus. Vide Caulis.

Hyalinus (from ὑαλος, *vitrum*), a watery-blue colour.

Hybernaculum, the hybernacle, defined by Linnæus to be a scaly covering to the embryo of the seed or bud, serving to protect it during the severity of the winter.

Hybrida (from ὑβρις, *injuria*), a hybrid plant; a vegetable monster produced from the mixture of two different species. *Primula elatior* and *Geum intermedium* of Withering are supposed to be hybrid plants.

Hymenium (from ὑμην, *membrana*), a membranous seed-vessel called the gill, which is peculiar to the Fungi. It is exemplified in the genus *Agaricus*, &c.

Hymenothecium. Vide Hymenium.

Hypha (from ὑφη, *web-texture*), a term employed to denote a delicate stipe which occurs in some of the Fungi.

Hypocrateriformis (from ὑπο, χρατηρ, *poculum*, and *forma*), salver-shaped. Vide Corolla.

Hypogæus (from ὑπογειον), a species of dicotyledonous plant with exalbuminous seeds, consisting of thick fleshy lobes, which for the most part, even before vegetation, cherish a manifest plumule in their bosom, which alone is capable of evolution. This is exemplified very evidently in *Juglans regia* and *Æsculus Hippocastanum*.

Hypogynus (from ὑπο, *sub*, and γυνη, *mulier*); in regarding the position and insertion of the stamens and pistils, this term is used to denote those stamens which arise from a lower surface than the pistils, as is common among the grasses.

Hypophyllus (from ὑπο, *sub*, and φυλλον, *folium*), a term used to signify an organ placed on the back of another.

Hypophyllospermus (from ὑπο, φυλλον, *folium*, and σπερμα, *semen*), signifying plants which produce seeds or sporules on the backs of the leaves.

Hypoxyla (from ὑπο, *sub*, and ξυλον, *lignum*), the eleventh natural order of the class Cryptogamia, established by De Candolle. This order is divided into two sections; the first taking the form of Lichens (from which order it is separated), crustaceous, and not discharging their sporuliferous mass spontaneously; the second (separated from the Fungi), destitute of a crust, and for the most part spontaneously discharging their sporuliferous pulp. A very extensive order, containing numerous genera, which are mostly of a black colour. By far the greater number are found growing on the dead trunks and branches of trees, frequently bursting through, and partly concealed by, the bark. Some are found upon

the dead stalks of herbaceous plants, and living, dead, and dying leaves. A very small portion are found upon rocks or stones.

I

Icosandria (from *ικος, viginti,* and *ανηρ, vir*), the twelfth class of the Linnean system, containing those plants which have perfect flowers with twenty or more stamens inserted into the calyx or petals, or both. The situation of the stamens easily distinguishes it from the class Polyandria, in which they are placed upon the receptacle. In this class the calyx is monophyllous and concave, and the claws of the petals are fixed into the inner side of the calyx.

Imberbis (from *in* and *barba*), beardless. Vide Corolla.

Imbricans (from *imbrico,* ex *imbrex,* a tile), imbricating, when the common petiole in a compound leaf is defended by being imbricated.

Imbricatus (from *imbricor*), imbricated; applied to the leaf, also to the calyx.

Immersus (from *immergor*), immersed. Vide Folium.

Immutatus (from *immutor*), unaltered.

Impari-pinnatus, unequally pinnated. Vide Folium.

Imperfectus, an imperfect flower. Vide Flos.

Implex. Vide Implicatus.

Implicatus (from *in* and *plicor*), the same as *plicatus.*

Impuber (from *in* and *puber*), this term is applied to plants before they arrive at maturity.

Inæqualis (from *in* and *æqualis*), unequal. It is applied to the corolla and calyx, but principally to the leaf. Vide Folium.

Inanis (from *inanio,* to make empty), applied to a stem which has only a soft pith within.

Incanus, hoary, applied to leaves and stems which are covered with a mealy substance. Vide Caulis.

Incarnatus (from *in* and *caro*), flesh-coloured; as in some of the Fungi; used the same as *carneus*.

Inciso-crenatum, deeply cut and notched. Vide Folium.

Incisus (from *incido*, to cut), cut into irregular segments.

Inclinans (from *inclino*, to bend or bow down), inclining.

Includens (from *includo*, to enclose), enclosing.

Inclusus (from *includor*), enclosed; opposed to *exsertus*.

Incompletus (from *in* and *compleo*), incomplete, when a flower is not perfect in all its parts. Vide Flos.

Inconspicuus (from *in* and *conspiscio*), inconspicuous.

Incrassatus (from *incrassor*), increased or thickened. Vide Pedunculus.

Incumbens (from *incumbo*, to lean or rest upon); when applied to the anther, it signifies that it is fixed to the side of the filament; when applied to the stamen, it signifies its leaning or resting against some part which supports it.

Incurvatus, s. incurvus (from *incurvor*), bent inwards. Vide Caulis.

Indivisus (from *in* and *dividor*), entire, undivided. Vide Folium.

Indusium (from *induo*, to cover over); the cover is a tender membrane which surrounds the *sorus* in the natural order of Filices, and is rent on the ripening of the seed-vessels. The following are the different kinds, viz.

Indusium *bivalve*, having two valves, which separate it into two distinct parts, and having also a cylindrical appearance, as in the genus *Hymenophyllum*.

—— *continuum*, when it proceeds uninterruptedly along a produced sorus, as in the genera *Pteris* and *Blechnum*.

—— *corniculatum*, horn-like, when the membrane is thin and hollow, and encloses the fruit, as in the genus *Equisetum*.

Indusium *duplex*, double, when on each side of the sorus there is a cover, as in the genera *Lindsæa*, *Scolopendrium*, and *Dicksonia*.

—— *exterius dehiscens*, parting outwards, when it loosens itself from the margin of the leaf, as in the genus *Asplenium*.

—— *interius dehiscens*, parting inwards, when it is divided from the middle rib, as in the genus *Adiantum*.

—— *marginale*, when it consists of the membrane of the margin of the leaf, as in the genus *Adiantum*.

—— *peltatum*, peltated, when it is circular, and is attached to the seeds by a small thread, as in *Aspidium Filix-mas*.

—— *planum*, when a thin membrane lies flat upon the sorus, as in the genus *Polypodium*.

—— *simplex*, simple, which is a single cover surrounding the sorus, as in the genera *Pteris*, *Asplenium*, &c.

—— *squamiforme*, scaly, having the appearance of scales.

—— *superficiarium*, when it consists of a superior membrane of the leaf, as in the genus *Scolopendrium*.

—— *urceolatum*, bladder-like, when it has almost the appearance of a cylindrical cup, as in the genus *Trichomanes*.

Inermis (from *in* priv. and *arma*), unarmed, having no prickles.

Infernè, beneath, used in respect to stalks to denote their lower parts.

Inferus (from *infra*), inferior, when one organ is placed below another, as is the receptacle below the germen in some plants.

Inflatus (from *inflator*, to be puffed up), being blown out like a bladder. Vide Calyx.

Inflexus (from *inflector*), bent inwards. Vide Folium.

Inflorescentia (from *infloresco*, to flower or blossom). In-

florescence signifies the manner in which flowers are collected together on their footstalks. The modes of flowering are described under the following terms, each of which is explained in its proper place, viz.

Capitulum,	Racemus,
Corymbus,	Spica,
Cyma,	Thyrsus,
Fasciculus,	Umbella,
Panicula,	Verticillus.

Infrà, beneath.

Infractus (from *in* and *fractus*, *à frango*), crooked, when taking various directions.

Infundibuliformis (from *infundibulum*, a funnel, and *forma*, a resemblance), funnel-shaped. Vide Corolla.

Insertio (from *inserto*), the point at which one part is inserted into another.

Integer (from *in* and *tago*, i. e. *tango*), entire, being undivided.

Integerrimus (super. from *integer*), very entire. Vide Folium,

Integumentum (from *in* and *tegumentum*, *à tego*, to cover), the integument or outer coat of a seed.

Intensè, intensely.

Internodium (from *inter*, within, and *nodus*, a knot), the space between two joints.

Interius-dehiscens. Vide Indusium.

Internus, internal.

Interruptè-pinnatus. Vide Folium.

Interruptus (from *interrumpor*), interrupted. Vide Spica.

Intervalvis (from *inter* and *valva*), intervalved.

Intortio (from *intorqueo*), a term of habit intimating the twining or twisting of any of the parts of a plant towards one side or other.

Intortus (from *intorqueor*), twisted inwards.

Intrafoliaceus (from *intra*, within, and *folium*, a leaf), a

term applied to stipules which grow on the side of the leaves.

Intrapetiolaris (from *intra* and *petiolus*, a petiole), when stipules appear within the leaf-stalk.

Inundatus (from *inundor*), inundated or overflowed; occasionally a trivial name to a plant, as *Sison inundatum*.

Invertens (from *inverto*, to turn upside down), inverting, when the more tender surface of the leaves is protected by being inverted.

Involucellum (dimin. from *involucrum*), the partial involucrum or lesser calyx of a compound umbel, situated immediately under the partial umbel.

Involucrum (from *in* and *volvo*, to wrap up), the universal calyx of an umbelliferous plant, situated under the larger or general umbel.

Involutus (from *involvor*), rolled inwards. Vide Folium.

Involvens (from *involvo*), involving, when the leaflets converge at their tips only, leaving a hollow beneath.

Irregularis, a flower is said to be irregular when there is no correspondence of parts.

Isostemones (from ισος, *æqualis*, equal, and στημων, *stamen*, a stamen), a term applied to plants which have their filaments of equal length. Of this arrangement we have examples in the first thirteen classes of the Linnean system.

J

Juba, a crest.

Jugum (from ζυγον), a yoke.

Juliformis (from *julus* and *forma*), catkin-like.

Julus, a catkin; so denominated by some authors before the time of Linnæus. It is now called *amentum*.

L

Labellum (dimin. from *labium*), a small lip.

Labiatus (from *labium*), lip-shaped. Vide Corolla.

Labium (απο του λαβειν), a lip; it most frequently denotes the lower segment of a ringent or labiate corolla.

Labyrinthiformis (from *labyrinthus*, a labyrinth, and *forma*, a resemblance), in the form of a labyrinth. This term is applied to the gills of some Fungi, which run into each other in an intricate manner.

Labyrinthus (from λαβυρινθος), a labyrinth, a place formed with intricate windings.

Laceratus (from *laceror*), lacerated or torn. Vide Folium.

Lacinia (from *lacino*, to make holes), a fringe.

Laciniatus (from *lacino*), cut into irregular incisions. Vide Folium.

Lacinula (dimin. from *lacinia*), a little jag or notch.

Lactescentia (from *lactesco*, to become like milk), lactescent; a plant is said to be lactescent when, on wounding it in any part, a quantity of milky fluid flows out, as in the genera *Euphorbia*, *Lactuca*, *Papaver*, &c.

Lacteus (from *lac*, milk), a milky-white.

Lacunosus (from *lacus*), the upper surface of a leaf being depressed between the veins. Vide Folium.

Lacustris (from *lacus*, ex λακκος), belonging to a pool or lake; also a specific name, indicating that the plant grows in or near a pool of water, as *Scirpus lacustris*, *Littorella lacustris*.

Lævigatus (from *lævigor*), polished; applied to a surface which is smooth and shining, as *Carex lævigata*.

Lævis (from *lævo*), smooth, even, without striæ. Vide Caulis.

Lamella (dimin. from *lamina*), a plate; the lamella or gills are thin foliaceous membranes which are on the under side of the pileus of some Fungi. In this part the seed-vessels are lodged; and are called by some

authors the *hymenium*. These are peculiar to the genus *Agaricus*.

Lamellatus (from *lamella*), lamellated; this term is applied to nerves which have dilated membranes, and is exemplified in *Gymnostomum ovatum*.

Lamina (from λαμνα), a plate, the upper spreading part of a polypetalous corolla, of which *unguis* is the claw.

Lana, wool, a species of soft pubescence found on the surface of many plants or seeds.

Lanatus (from *lana*), woolly. Vide Folium.

Lanceolato-ovatus. Vide Folium.

Lanceolatus (from *lancea*, a lance), lanceolate, or spear shaped.

Lanuginosus (dimin. from *lanugo*), slightly downy.

Lanugo (*propter lanæ similitudinem*), down, a species of pubescence found on the surface of plants, which is of a fine, soft nature, as on *Trichostomum lanuginosum*.

Lapideus (from *lapis*), stony; a term denoting the hardness of stone.

Larvatus (from *larva*, a mask), applied the same as *personatus*. Vide Corolla.

Latera (from *latus*, the side), parts which lie on both sides of the axis.

Lateralis (from *latus*), lateral; when an organ is inserted on the side of another. Vide Pedunculus.

Lateriflorus (from *latus*, the side, and *flos*, a flower), when flowers are fixed to one side of the stem.

Laterifolius (from *latus*, a side, and *folium*, a leaf), when a flower is fixed on the side of a leaf.

Lateritius (from *later*, a brick), a darkish-red colour.

Latifolius (from *latus*, broad, and *folium*, a leaf), broad-leaved; a trivial name given to some plants, as *Lathyrus latifolius*, &c.

Latitans (from *lateo*, ex λαθω), being concealed.

Latus (ex πλατυς), spreading wide.

Laxus (from *laxo*, to slacken), loose; opposed to *coarctatus*.

Legumen (from *lego*, to gather), a pod, a species of bivalved pericarp, which has its seeds fastened to the suture on one side only, as in the genus *Pisum*, and many others in the class Diadelphia. The following are the different kinds, viz.

Legumen *acinaciforme*, scymitar-shaped, as in *Phaseolus lunatus*.

—— *acuminatum*, acuminate, ending in a point, as in *Dolichos polystachos*.

—— *arcuatum*, bent like a bow, as in *Astragalus glycyphyllos*.

—— *articulatum*, jointed, as in *Turpinia punctata*.

—— *canaliculatum*, channelled, when the upper suture is deeply furrowed, as in *Lathyrus sativus*.

—— *capitatum*, capitate, formed like the head, as in *Phaseolus Mungo*.

—— *carnosum*, when the valves consist of a fleshy substance, as in the genus *Baryosma*.

—— *cochleatum*, when it is twisted like the shell of a snail, as in *Medicago lupulina*.

—— *compressum*, compressed, flattened, as in *Lathyrus sativus*.

—— *coriaceum*, when the valves are of a thick, spongy, or cork-like substance, as in the genus *Lupinus*.

—— *diaphanum*, almost transparent.

—— *dispermum*, containing two seeds, as in *Glycine tomentosa*.

—— *echinatum*, set with sharp prickles, as in *Glycyrrhiza echinata*.

—— *farinosum*, when the seeds are surrounded with a mealy substance.

—— *glabrum*, smooth and shining, as in *Vicia lathyroides*.

—— *hirsutum*, when covered with short, stiffish hairs, as in *Ervum hirsutum*.

Legumen *inflatum*, when blown out like a bladder, as in *Colutea arborescens*.

—— *lignosum*, woody, when the valves are of a shell-like substance, and do not burst.

—— *lineare*, linear, as in *Phaseolus vexillatus*.

—— *lunatum*, crescent-shaped, as in *Medicago falcata*.

—— *membranaceum*, when both valves consist of a transparent membrane.

—— *monospermum*, containing only one seed, as in *Medicago lupulina*.

—— *mucronatum*, when terminating in a sharp point, as in *Dolichos benghalensis*.

—— *multiloculare*, when divided into many cells. It is either by transverse constrictions, or by inflexion of the valves, not by a separate longitudinal partition, as is exemplified in *Dolichos purpureus*.

—— *obcordatum*, obcordate, the heart-shape reversed, as in the genus *Polygala*.

—— *ovatum*, egg-shaped, as in *Lotus hirsutus*.

—— *pendulum*, pendulous, as in *Phaseolus vulgaris*.

—— *polyspermum*, when it contains many seeds, as in *Diphysa carthagenensis*.

—— *quadrangulatum*, four-angled, as in *Dolichos tetragonolobus*.

—— *rhombeum*, rhomb-shaped, when the four sides are equal, but the angles not right-angles, as in *Cicer arietinum*.

—— *teres*, round, cylindrical, as in the genus *Lotus*.

—— *tetraspermum*, containing four seeds, as in *Trifolium repens*.

—— *torulosum*, torulose, when the valves are round and thick, as in *Galega officinalis*.

—— *turgidum*, swollen, as in *Cicer arietinum*.

—— *villosum*, villous, when covered with soft hairs, as in *Galactea mollis*.

Lenticularis (from *lenticulaire*, doubly convex), lenticular; applied to a leaf, also to a seed.

Lepidotus (from λεπιδωτος, *à* λεπις, *squama*), scaly.

Leprosus (from λεπρος, *scaber*), rough and spotted like the skin of a leopard, as exemplified in some of the Lichens.

Liber, the inner bark of a tree which lies under the epidermis. In young plants it is scarcely distinguishable from the wood, but in older stems it is easily observed, and consists of as many layers as they are years old. It contains a number of fibres which run longitudinally, and which, when separated by maceration, exhibit a net-work of a beautiful structure. In the *Daphne Mezereum*, these fibres have a fine white, shining, silky appearance; and in the *Daphne Lagetto*, a native of Jamaica, called Lace-Bark, they, by processes used for that purpose, form an elegant kind of lace.

Liber, free, when applied to the receptacle, signifies its being detached on every side, and cohering at one extremity only.

Lichenes (from λειχην), the tenth natural order of the class Cryptogamia of recent authors, taken from the *Algæ* of Linnæus. This order contains several genera of plants, all of which are rootless and leafless, growing on the trunks of trees, or on the ground; also on rocks, but never aquatic. They are of various colours and forms, either pulverulent, crustaceous, membranaceous, coriaceous, or branched and shrub-like. Fructification of two kinds; receptacles in the form of shields or tubercles, or lirellæ, containing sporules; or naked, minute grains scattered in powdery masses over the surface.

Lignosus (from *lignum*), woody; opposed to herbaceous.

Lignum, wood, the inner part of the body or trunk of a tree, which is distinguished from the bark by its being of a hard substance. It is first formed from the albur-

num, which is of a soft tender nature, but by degrees acquires solidity, and becomes wood itself. In the ash, oak, elm, and such hard-wooded trees, there is formed annual concentric circles, which is the alburnum forming into wood, and by which means we are acquainted with the age of the tree. The pith which is seen in young trees of this kind, changes into a dark brown kernel, and becomes the heart of the tree. In the softer woods, such as willow, alder, and elder trees, the ligneous body remains in the same state of alburnum, without acquiring any farther degree of solidity.

Ligula (from *lingula*, dimin. from *lingua*, a tongue), a strap; a semi-transparent bractea, which is usually found at the apex of the sheath in grasses.

Ligulatus (from *ligula*), strap-shaped. Vide Corolla composita.

Lilacinus, the colour of lilac.

Liliaceus (from *lilium*), liliaceous; applied to a corolla with six regular petals, resembling a lily.

Limbus, the limb, the upper expanding part of a monopetalous corolla.

Limes (from λιμην, *portus*), the part where the stem and root join. It is now called *collum*.

Limitatus (from *limitor*), limited; contrary to *effusus*.

Linea (from λινον, *linum*), a geometrical line.

Linearis (from *linea*), linear, the breadth of a line. Vide Folium.

Lineari-cuneiformis, linear wedge-shaped. Vide Folium.

Lineari-lanceolatus, linear-lanceolate. Vide Folium.

Lineari-subulatus, linear-subulate. Vide Folium.

Lineatus (from *lineor*), streaked; applied the same as *striatus*.

Linguiformis. Vide Lingulatus.

Lingulatus (from *lingua*, a tongue), tongue-shaped. Vide Folium.

Littoralis (from *littus*, the shore), the part where the salt water mixes with the soil, which is peculiarly adapted to the growth of some plants, as *Salicornia herbacea*, *Aster Tripolium*, and some others. The *Littorella lacustris* takes its generic name from its inhabiting pools occasionally saturated with salt water.

Lividus (from *liveo*), darkish grey, bordering upon a violet colour, which affords a trivial name, as *Senecio lividus*, &c.

Lobatus (from *lobus*), lobed. Vide Folium.

Lobus (from λοβος, *ima auris pars*), a lobe; lobes are large undivided parts, which are broad and rounded.

Loculamentum (from *locus*, a place), the loculament; the internal division of a capsule, which contains the seed.

Locularis (from *loculus*), locular; applied to a capsule composed of cells.

Loculus (dimin. from *locus*), the small cell of an anther which contains the pollen.

Locus (from λοκος), the particular part of a plant where an organ is fixed.

Locusta; according to Ray, the husky calyx of grasses, which is now called *gluma*.

Lomentum (from *lotus*, bean-meal), a loment; a species of legumen which is internally divided into cells by transverse partitions. It does not burst longitudinally as the common legumen, but, on opening, the partitions detach themselves in small pieces. The following are the various kinds, viz.

Lomentum *aculeatum*, prickly, as in *Hedysarum Onobrychis*.

—— *articulatum*, jointed, when the divisions are visible externally, as in *Hedysarum argenteum*.

—— *corticosum*, when the outer shell is hard and woody, but internally the cavities are filled with a soft substance.

Lomentum *cristatum*, crested, as in *Hedysarum crista-galli*.

—— *isthmis interceptum*; it is said to be intercepted with isthmuses when the transverse partitions are easily seen, and also easily separated, but the cells are much smaller than the articulations; this is exemplified in the genera *Hippocrepis* and *Scorpiurus*.

—— *moniliforme*, necklace-like, consisting of a number of little globules, as in *Mullera moniliformis*.

—— *pubescens*, pubescent, as in *Hedysarum moniliferum*.

Longissimus (super. of *longus*), very long, when the petiole is much longer than the leaf.

Longitudinalis (from *longitudo*), longitudinal, when the cells are placed mutually upon each other, and are disposed in simple series, according to the length of the fruit, as in *Raphanus Raphanistrum*, &c.

Longus, long, when the petiole is longer than the leaf.

Lucens (from *luceo*, to give light), when of a bright shining appearance, as in the leaves of *Potamogeton lucens*.

Lucidus (from *lux*, the light), bright, shining. Vide Folium.

Lunulatus (dimin. from *luna*, the moon), crescent-shaped. Vide Folium.

Luridus, a mixture of black and blue, as in the corolla of *Atropa Belladonna*.

Luteus, a yellow colour; the trivial name of some plants, as *Ornithogalum luteum*, *Gentiana lutea*, &c.

Luxurians (from *luxurio*, to grow rank), luxuriant, a term applied to a double flower.

Lyratus (from *lyra*, *à* λυρα, a harp), lyre-shaped. Vide Folium.

Lycopodineæ (from λυκος, *lupus*, a wolf, and πους, *pes*, a foot, so named from its supposed resemblance), the fourth natural order of the class Cryptogamia, arranged by recent authors from *Musci* of Linnæus. This order contains plants with undivided leaves bearing the fruc-

tification, which is of a pulverulent nature, in the axils of the leaves or in spikes; the stems are herbaceous or woody, simple or branched, erect or creeping. This order contains at present only the genus *Lycopodium*.

Lytothecium (from λιτος, *tenuis*, and θηκη, *à τιθημι, pono*), a term given to such of the Fungi as have their fructifying surface, or *hymenium*, dissolving into a gelatinous mass.

M

Maculatus (from *macula, maculo*, to stain), spotted. Vide Folium.

Malvaceus (from *malva*), mallow-like, applied to flowers which have the same form as those of the mallow.

Mammillatus (dimin. from *mamma, à* μαμμη), when an hemispherical body has a small wart upon the top.

Marcescens (from *marcesco*), withering, shrivelling; applied to the corolla and calyx.

Marcidus (from *marceo*); applied the same as *marcescens*.

Marginalis (from *margo*), marginal, when an organ proceeds from the inflected margins of the valves.

Marginatus (from *margo*), marginate. Vide Semen.

Margo, the margin or edge of a leaf.

Marinus (from *mare*, the sea), marine; the situation adapted to the growth of some plants, as *Arenaria marina*.

Maritimus (from *mare*), maritime; the situation and soil to which some plants belong, and from which they receive their trivial name, as *Glaux maritima, Crithmum maritimum*, and some others.

Marsiliaceæ, the second order of the class Cryptogamia according to recent authors, containing plants which are wholly aquatic, bearing their fructification in globular indehiscent involucres (resembling capsules) upon a stoloniferous stem, between the axils of their subulate

leaves, as is exemplified in the genera *Marsilea*, *Pilularia*, and *Isoetes*.

Masculus (dimin. from *mas*), signifying a flower which bears stamens only. Vide Flos.

Maturatio (from *maturo*), the ripening of fruit; the time at which fruits or seeds ripen.

Matutinus (from *matuta*), a term applied to those flowers which open only in the morning.

Mediocris (from *medius*), of a middle size.

Mediterraneus (from *medius* and *terra*), a term applied to those plants whose climate and situation is at the greatest distance from the sea.

Medulla (from μιλος), the pith, or heart of a plant, is a mass of cellular substance in shrubs and young trees, lying within the wood. But in old trees it either entirely disappears, or passes into an inorganic brown kernel.

Mejostemones (from μειων, *less*, and στημων, a *stamen*), a term applied by Haller to plants which have their stamens in less number than the petals. It is exemplified in the genus *Veronica*.

Melinus (from *mel*, à μιλι), the colour of honey; it is generally applied to seeds.

Membrana (from *membrum*), a membrane.

Membranaceus (from *membrana*), membranaceous, applied to leaves, pods, &c. which are of a thin pliable texture.

Membranatus (from *membrana*), a term applied to a stem which is of a thin membranous substance.

Meniscoideus (from μηνισκος), meniscoid, a shield-shaped leaf, having its upper surface convex, and the lower one concave.

Methodus (from μεθοδος, qu. μετα, and οδος), a method; the mode of arrangement from certain agreements in the parts of plants, or circumstances of their resemblance.

Miniatus (from *minior*), the colour of vermilion.

Minutus (dimin. from *minus*, à *minuo*), minute, when

seeds appear like dust or powder, as in the orders *Filices* and *Musci.*

Mitræformis (from *mitra* and *forma*), mitriform, a term applied to the calyptra of some mosses, which resemble the form of a bishop's mitre.

Monadelphia (from μονος, *one,* and αδελφος, a *brotherhood*), the sixteenth class of the Linnean system, containing plants with perfect flowers, which have their stamens united together at the bottom into one bundle or brotherhood.

Monandria (from μονος, *unus,* and ανηρ, *vir*), the first class of the Linnean system, containing plants with perfect flowers, which have but one stamen.

Moniliformis (from *monile,* a necklace, and *forma,* a shape or form), moniliform, or necklace-like, denoting a connection of globular bodies supported by threads, as in the genera *Acrosporium, Antennaria, Nees,* &c.

Monoclinia (from μονος and κλινη, à κλινω). This term includes all those plants which have stamens and pistils upon the same receptacle.

Monocotyledones (from μονος and κοτυληδων), a term applied to those plants whose seeds have but one cotyledon or seed-lobe, as is exemplified in the grasses.

Monœcia (from μονος, *unus,* and οικια, *domus*), the twenty-first class of the Linnean system, consisting of such plants as have stamens and pistils in separate flowers on the same plant.

Monogamia (from μονος, *unus,* and γαμος, *connubium*), signifying a single marriage. This was formerly placed as the sixth order of the class Syngenesia, according to the system of Linnæus, from its containing plants with five stamens united at the top into a cylinder; but as they are simple flowers, it has been thought proper to abolish this order, and remove the plants to the class Pentandria. This appearance of the stamens is exem-

plified in the genera *Viola, Impatiens,* and in *Lobelia Cardinalis.*

Monogynia (from *μονος, unus,* and *γυνη, uxor*), the first order of the Linnean system, containing plants with perfect flowers, which have only one pistil.

Monopetalus (from *μονος, unus,* and *πεταλον, petalum*), a corolla is so termed when it consists of only one petal.

Monophyllus (from *μονος, unus,* and *φυλλον, folium*), a calyx is termed monophyllous when it consists of only one leaf.

Monospermus (from *μονος* and *σπερμα*), one-seeded. Vide Capsula.

Monostachyos (from *μονος* and *σταχυς*), a term applied to those plants which bear only a single spike of flowers.

Mucronatus (from *mucro,* à *μαχρος*), mucronate. Vide Folium.

Multangularis (from *multus* and *angulus*), many-angled, applied to a stem which has many angles.

Multicapsularis (from *multus* and *capsula*), a term applied to plants which bear many capsules.

Multiceps, many-headed.

Multidentatus (from *multus* and *dens*), many-toothed, applied to a leaf.

Multifidus (from *multus* and *fissus,* à *findo*), many-cleft. Vide Folium.

Multiflorus (from *multus* and *flos*), many-flowered; applied to a peduncle which has many flowers.

Multilocularis (from *multus* and *loculus*), many-celled; applied to a capsule which has many loculaments.

Multipartitus (from *multus* and *pars*), much divided. Vide Folium.

Multiplicatus (from *multus* and *plico*), much folded; applied to a luxuriant flower.

Multisiliquæ (from *multus* and *siliqua*), a term applied to those plants which bear many pods.

Multivalvis (from *multus* and *valva*), many-valved. Vide Capsula.

Muricatus (from *murex*), muricated, sharp-pointed; applied to the leaf, stem, calyx, pod, and also to seeds.

Murinus (from μυϱον), a brownish-grey colour.

Musci (from μοσχος), the second order of the class Cryptogamia according to the Linnean system, the sixth of the present arrangement, which contains the Mosses.

Mutabilis (from *muto*), changeable.

Muticus (from *mutilus*), beardless; applied to the glumes of grasses when they are destitute of awns.

Mutilatus (from *mutilor*, to be maimed), mutilated; applied to a flower which is deprived of all its petals, or the greater part.

Mycropyle, a small cavity which appears under the umbilicus in the seeds of some leguminous plants.

N

Napiformis (from *napus* and *forma*), turnip-shaped.

Natans (from *nato*), floating, applied to leaves which swim upon the water.

Naturalis (from *natura*), natural. Vide Character.

Naucum, the external covering which surrounds the shell in the genus *Amygdalus*.

Navicularis (from *navicula*, dimin. from *navis*), boat-shaped; applied to the valves in the genera *Isatis* and *Thlaspi*.

Nebulosus (from *nebula*), clouded.

Nectarilymata (from *nectar*), organs which serve for the protection of honey; they are formed either by tufts of hair, as in the genus *Geranium*, or by scales and subordinate leaves, as in the genus *Phylica*.

Nectarinus, an organ inserted into the nectary.

Nectarium (from νεκταϱ, the drink of the gods), the nectary, a part of a corolla, for the most part containing ho-

ney. It is not essential to fructification. When present it is variously situated, and has different forms, viz.

Nectarium *calcaratum*, when shaped like a horn, or spur-shaped, as in the genera *Orchis* and *Delphinium*.

—— *calicynum*, when fixed on the calyx, as in *Monotropa Hypopithys*.

—— *corniculatum*. Vide Calcaratum.

—— *hemisphæricum*, hemispherical, when in the form of half a sphere, as in *Narcissus Jonquilla*.

—— *ovatum*, egg-shaped.

—— *petalinum*, when inserted into the petals, as in *Fritillaria Imperialis*.

—— *pistillaceum*, when inserted into the germen, as in *Butomus umbellatus*, *Cheiranthus fruticulosus*, &c.

—— *proprium*, proper, when distinct from the petal and other parts of the corolla, as in *Helleborus niger*, *Aconitum Napellus*, &c.

—— *receptaculum*, when attached to the receptacle, as in the genera *Menyanthes*, *Lathræa*, *Mercurialis*, &c.

—— *stamineum*, when adhering to the stamen, as in *Dictamnus albus* and the genus *Campanula*.

—— *scrotiforme*, purse-shaped, somewhat globular, with a depressed line in the middle.

—— *turbinatum*, turbinate, somewhat of a conical figure, as in *Narcissus Bulbocodium*.

Nectarostigmata (from νηκταρ and στιγμαι, à στιζω), this term denotes the coloured lines or spots which lead to the proper nectaries, as in the genus *Pelargonium*.

Nemorosus (from *nemus*, à Gr. νημος, à νεμω), a term applied to those plants which grow in shady places, as *Anemone nemorosa*.

Nervosus (from *nervus*), nerved. Vide Folium.

Nervus (from νευρον), a nerve, the larger vessels in a leaf.

Nidorus (from *nidor*), nidorous, a smell like any thing burning.

Nidulans (from *nidus*), nestling, as the seeds of *Melastoma* in the pulp of the berry.

Niger (from νιγερος), black; the specific name of some plants, as *Empetrum nigrum, Hyoscyamus niger*, &c.

Nigricans (from *nigro*), blackish, or bordering upon a black. It is also used as a trivial name, as *Schœnus nigricans*.

Nitidus (from *niteo*), shining, of a glossy nature. Vide Folium.

Nivalis (from νιψ, à νιφω), having a snowy appearance. It is a trivial name to some plants, as *Galanthus nivalis*.

Niveus (from νιψ), snow-white.

Nocturnus (from *noctu*), night-flowering; applied to those flowers which expand only during the night. This is exemplified in *Silene noctiflora*.

Nodosus (from *nodus*), knotted, when swellings are produced on stems and branches.

Nodus (from *neo*, to knit), a knot.

Nomen (from ονομα), a name, denoting some mark of distinction by which one plant is known from another.

Notatus (from *nota*), marked or noted.

Nucamentum (from *nux* and *amentum*). This term by former authors was used to signify a catkin; but now *amentum*.

Nucleus (from *nux*), the kernel of a nut.

Nudus (from *nudo*), naked, applied to the corolla when destitute of a calyx, and to a stem which is destitute of leaves.

Nutans (from *nuto*), nodding. Vide Caulis.

Nux, a nut, a seed covered with a hard shell which does not burst. It is either one, two, or three seeded, or is divided into one, two, or more cells, as follows, viz.

Nux *bilocularis*, when there are two cells.

Nux *bisperma*, when it contains two seeds.
—— *multilocularis*, when there are more than three cells.
—— *trilocularis*, when there are three cells.
—— *trisperma*, when it contains three seeds.
—— *unilocularis*, when it has one cell.
—— *unisperma*, when it contains only one seed, as in *Corylus Avellana*.

O

Obconicus (from *ob* and *conus*), the cone-shape reversed.
Obcordatus (from *ob* and *cor*), obcordate, the heart-shape reversed. Vide Capsula.
Oblongus (from *ob* and *longus*), oblong, when the length exceeds the breadth. Vide Folium.
Oblongiusculus (dimin. from *oblongus*), somewhat oblong.
Obovatus (from *ob* and *ovum*), obovate, the egg-shape reversed. Vide Folium.
Obtusè-angulus, obtusely angled. Vide Caulis.
Obtusè-emarginatus. Vide Folium.
Obtusiusculus (dimin. from *obtusus*), somewhat obtuse.
Obtusus (from *obtundor*), obtuse, blunt at the apex. Vide Folium.
Obversus (from *ob-verto*), obverse, when the radicle of the embryo approaches the aperture of the umbilicus, as in the *Compositæ*.
Obvolutus (from *ob-volvo*), obvolute, when parts are rolled round one another.
Ochraceus (from ὠχρος, *ochra*), ochre-yellow.
Ochroleucus, a light straw colour.
Ocrea, a term used by Rottball for the cylindrical membrane which surrounds the flower-stalk in the *Cyperus*; this is regarded by Sir J. E. Smith as a species of bractea.
Octagonus, applied to a stem which has eight angles.
Octagynia (from ὀκτω, *octo*, and γυνη, *uxor*), the eighth or-

der of the Linnean system, containing plants which have perfect flowers with eight pistils.

Octandria (from ὀκτω, *octo*, and ἀνηρ, *vir*), the eighth class of the Linnean system, containing plants which have perfect flowers with eight stamens.

Octo-fidus (from *octo* and *fissus*, à *findo*), eight-cleft.

Octona (from ὀκτω), eight together.

Octo-partitus (from *octo* and *pars*), eight-parted, divided into eight parts.

Oculus (from ὀκος, à ὀπτω, *video*), the eye, the part where the bud takes its rise.

Odoratus (from *odor*, i. e. *oleo*), sweet-scented. It is used also as a trivial name, as *Viola odorata*, *Reseda odorata*, and *Anthoxanthum odoratum*.

Olivaceus (from *oliva*), an olive-green colour.

Officinalis (from *officina*), a term to denote medicinal plants, and often used as a trivial name, as *Symphytum officinale*, *Verbena officinalis*, &c.

Opacus (from *opaco*), opaque, dark coloured, not reflecting light; in opposition to *nitidus*.

Operculum (from *operio*), a lid or cover to the capsules in mosses, which falls off when the fruit is ripe.

Oppositus (from *oppono*), opposite, when branches are placed in pairs on opposite sides of the stem. Vide Caulis.

Orbiculatus, seu Orbicularis (from *orbis*), orbicular. Vide Folium.

Orbiculus (dimin. from *orbis*), a round fruit-bud, which is found in some of the Fungi, as in the genera *Nidularia*, *Orbilla*. The fruits of some Lichens, which are flat, slightly coloured, and without a raised margin are called *orbillæ*.

Orgya, a fathom, or the distance to the point of the fingers when the arm is extended.

Os, an opening in the capsules of mosses, termed the mouth.

Osseus (from ὀστεον), bony.

Ovalis (from *ovum*), oval-shaped. Vide Folium.

Ovarium (dimin. from *ovum*), the germen or seed-bud, which contains the rudiments of the future seed.

Ovato-lanceolatus. Vide Folium.

Ovatus (from *ovum*), egg-shaped. Vide Folium.

Ovulum (dimin. from *ovum*), a term expressing the commencement of the formation of the seed.

P

Pagina (from *pagendo*), the surface of a leaf, which denotes the superior and inferior, the upper and under part.

Palatum (from παω), the palate, the elevated and arched part of the lower lip of a ringent corolla.

Palea (from παλλω), a dry membranous substance, common in compound flowers.

Paleaceus (from *palea*, à παλλω), chaffy. Vide Pappus.

Pallidè-flavens, a pale yellow.

Pallidus (from *palleo*), pale-coloured.

Palmaris (from *palma*), the measure from the thumb to the end of the middle finger, called a span.

Palmatus (from *palma*), palm-shaped, applied to the root, also to a leaf.

Palustris (from πελος, *palus*), marshy, a natural soil for some plants, from which they receive their trivial name, as *Parnassia palustris*, *Scirpus palustris*, and some others.

Panduræformis (from *pandus*, and *forma*), violin or guitar-shaped.

Panicula (dimin. from *panus*, à Gr. πανος), a panicle, a mode of loose inflorescence, in which the flowers are placed upon the stem without any order. It is com-

mon amongst the Grasses. The following are the different kinds, viz.

Panicula *coarctata*, a dense or crowded panicle, as in *Phleum paniculatum*, &c.

—— *contracta*, contracted, when the panicle is so narrow, that it nearly resembles a spike, as is exemplified in *Panicum ischæmoides*.

—— *diffusa*, when it is loose and spreading, as in *Saxifraga umbrosa*.

—— *divaricata*, divaricated, being spread somewhat widely, as in *Prenanthes muralis* and *Spergula arvensis*.

—— *secunda*, when the flowers hang on one side only, as in *Dactylis glomerata*, *Festuca bromoides*, &c.

Paniculatus (from *panicula*, dimin. from *panus*, à πανος), panicled, a term applied to a plant which produces loose flowering spikes.

Papilionaceus (from *papilio*), butterfly-shaped. Vide Corolla.

Papillæ (dimin. from *papula*); *papillæ* are small warts or protuberances which appear on the under surface of the *pileus* of some of the Fungi, which also contain the organs of germination.

Papillosus (from *papilla*), when a surface is covered with tubercles. Vide Folium.

Pappus (from παππος), down, a crown of some seeds which remains after the flower has fallen, serving to spread them to various distances: it is either of a feathery, hairy, or bristly nature, and is also either sessile, or stipitate. The different kinds are exemplified in the following terms, viz.

Pappus *aristatus*, awned, when there are from one to three *setæ* placed upon the top of the seed.

—— *caducus*, falling off as soon as the seed is ripe, as in the genera *Carduus* and *Cnicus*.

Pappus *calyculatus*, when a membranous rim rises over the seed.

—— *capillaris*, hairy, when formed of many fine white hairs, as in the genus *Carduus*.

—— *ciliatus*, fringed, when there are hard setæ set within short hairs.

—— *cyathiformis*, cup-shaped, as in the genus *Dipsacus*.

—— *difformis*, when they differ in form, as in the genus *Hypochœris*.

—— *dimidiatus*, when the pappus is composed of a membrane which covers only a part of the top of the seed.

—— *dissimilis*. Vide Difformis.

—— *fugax*. Vide Caducus.

—— *geminatus*, doubled, when the pappus is twofold.

—— *integer*, entire, when the pappus is composed of a membrane which wholly surrounds the top of the seed.

—— *marginatus*. Vide Calyculatus.

—— *paleaceus*, chaffy, when small leaves stand like scales round the top of the seed, as in the genus *Cichorium*.

—— *persistens*, adhering to the seed, as in the genus *Serratula*.

—— *pilosus*. Vide Capillaris.

—— *plumosus*, feathery, when composed of setæ which are set with fine hairs, as in the genus *Cnicus*.

—— *retrorsum scaber*, rough, and bent back, as in the genus *Bidens*.

—— *scaber*, rough, as in the genus *Chrysocoma*.

—— *sessilis*, sessile, when resting immediately upon the seed, as in the genus *Hieracium*.

—— *setaceus*, setaceous, having many rigid bristles, which are not white.

—— *simplex*, simple, when wholly composed of rays of one form.

—— *stellatus*, starred, when there are five long setæ

placed round the top of the seed, as in *Scabiosa stellata.*

Pappus *stipitatus*, stipitate, when supported on a pedicel, as in the genus *Leontodon.*

—— *submarginatus*, slightly marginated, as in the genus *Anthemis.*

—— *uniformis*, when all the pappi are of the same form.

Parabolicus (from παραβαλλω, *comparo*), applied to a leaf which resembles a parabola, having its longitudinal diameter exceeding the transverse, and narrowing from the base upwards into a half ovate.

Parallelus (from παραλληλος, à παρα et αλληλων), parallel to the valves, when the breadth of the dissepiment is equal to the greatest breadth of the fruit or seed-vessel, as in the genera *Lunaria, Draba*, &c.

Parenchyma (from παρεγχυω, *percolo*, to strain through), a soft, pulpy substance found immediately under the epidermis. By Mirbel, it is compared to clusters of hexagonal cells, containing a coloured juice, formed by the foldings of a delicate membrane wherein no organization can be traced.

Parasiticus (from παρασιτος, à παρα et σιτος), a term used to denote those plants which do not grow upon the ground, but grow upon other plants, as the various species of *Orobanche, Viscum album*, &c.

Parkeriaceæ, the third natural order of the class Cryptogamia, very recently established by Dr Hooker. Its fructification is uniform, composed of spherical, unilocular, membranaceous capsules, destitute of an elastic ring, consequently not bursting. At present this order contains only the aquatic genus of fern called *Parkeria.*

Partialis (from *pars*), expressive of a part. Vide Umbellula, and Pedunculus.

Partitus (from *partior*), divided. Vide Folium.

Parvus (from πανρος), small, signifying a part being smaller than the rest.

Patella (dimin. from *patina*), a dish. There are open flat fruits in the Lichens without a raised margin, which are called *patellæ*.

Patelliformis (from *patella* and *forma*), plate-shaped, when a minute radical tubercle is formed into a round saucer, as in the genus *Flagellaria*.

Patens (from *pateo*, à πιταω, *aperio*), spreading, applied to the stalk and branches.

Patentissimus (sup. of *patens*), very much spreading.

Patulus (dimin. from *patens*), a slightly spreading calyx.

Pectinatus seu pectiniformis (from *pecten*, à *pecto*), comb-shaped. Vide Folium.

Pedalis (from *pes*), a measure of a foot in length.

Pedatifidus (from *pes* and *fissus*, à *findo*), a pedate leaf which is cleft.

Pedatus (from *pes*), a pedate leaf. Vide Folium compositum.

Pedicellatus (from *pedicellus*), a flower is said to be pedicellated, when it is supported upon a partial footstalk.

Pedicellus (dimin. from *pedunculus*), a partial flower-stalk, which supports the flower: it is the ultimate division of the peduncle, or general flower-stalk.

Pedunculatus (from *pedunculus*); a flower is said to be pedunculate, when it is supported upon a peduncle or general footstalk.

Pedunculus (dimin. from *pedo, pedare*, the same as *fulcire*, to prop or support), the peduncle, the common footstalk, which supports the flower and fruit. The following are the different kinds, viz.

Pedunculus *alaris*, when the peduncle is standing in the axillæ of the branches, as in *Radiola millegrana*.

Pedunculus *axillaris*, when it is fixed in the axillæ of the leaves.

—— *biflorus*, when bearing two flowers.

—— *cernuus*, when curved or bent at the top, so that the flower droops, or is inclined to one side, as in *Helianthus annuus* and *Cnicus cernuus*.

—— *communis*, when there are several lesser flower-stalks placed upon it, as in aggregate flowers.

—— *deliquescens*, disappearing, when it cannot be traced to the end.

—— *extrafoliaceous*, when placed under the leaf.

—— *fastigiatus*, when supporting pedicels, which, although unequal in length, form a level surface of flowers, as in *Dianthus barbatus*.

—— *flaccidus*, when it is so weak and feeble that it cannot support the weight of its flowers.

—— *intrafoliaceus*, when the peduncle is seated on the stem between the leaves.

—— *lateralis*, when it is found on the sides of the branches.

—— *laterifolius*, when sitting on the stem by the side of the leaf.

—— *multiflorus*, when it bears many flowers.

—— *oppositiflorus*, when the flower-stalks stand opposite each other.

—— *oppositifolius*, when placed opposite to the leaf on the other side.

—— *partialis*, the partial flower-stalk, which is called the *pedicellus*, is placed upon the common footstalk, which supports the flowers in an aggregate or head of flowers.

—— *petiolaris*, when the flower-stalk is inserted into the leaf-stalk.

—— *radicalis*, when a single flower-stalk rises from the root, as in *Viola odorata*.

Pedunculus *refractus*. Vide Retro-fractus.

—— *retrofractus*, when the peduncle is so bent back as to appear as if it were broken.

—— *scapiformis*, an upright, leafless flower-stalk, rising from the base of the root, bearing flowers on the top, as in *Primula elatior*, *Auricula*, &c.

—— *sparsus*, scattered, when they are placed in an irregular order upon the stem.

—— *triflorus*, when bearing three flowers.

—— *uniflorus*, when bearing only one flower.

Pellicula (dimin. from *pellis*); the pellicle is a membranous or downy substance which covers the seeds of some plants, but is not perceptible till the seed is moistened.

Peltatus (from *pelta*), peltate, or target-shaped; applied to a leaf, also to a stigma.

Pendulus (from *pendeo*), when an organ is directed downwards.

Penicilliformis (from *penicillus*, dimin. from *peniculus* and *forma*), pencil-like. Vide Stigma.

Pentagonus (from πεντε and γωνια), five-angled. Vide Caulis.

Pentagynia (from πεντε, *quinque*, and γυνη, *uxor*), the fifth order of the Linnæan system, containing plants which have perfect flowers with five pistils.

Pentandria (from πεντε, *quinque*, and ανηρ, *vir*), the fifth class of the Linnæan system, containing plants which have perfect flowers with five stamens.

Pentapetalus (from πεντε, *quinque*, and πεταλον, *petalum*), applied to a corolla which has five petals.

Pentaphyllus (from πεντε, *quinque*, and φυλλον, *folium*), applied to a calyx which has five leaves.

Pepo (from πεπων, à πεπτω, *maturo*), a species of seed-vessel which is termed a pumpkin: it is of a succulent nature, having its seeds enclosed in a pulp, co-

vered with a strong peel. The various kinds are emplified in the following terms, viz.

Pepo *bilocularis*, bilocular, having two cells which c tain the seeds.

—— *carnosa*, when it is of a juicy nature.

—— *corticosa*, when it has a firm hard rind.

—— *exsiccosa*, when it is dry and hard.

—— *multilocularis*, multilocular, when there are ma cells which contain the seeds.

—— *semilocularis*, when the partition does not reach t centre.

—— *trilocularis*, trilocular, when there are three cells

—— *unilocularis*, unilocular, when there is but one ce

Perennis (from *per* and *annus*), perennial; this term applied to those plants whose roots live for more th two years; the botanical sign is ♃.

Perfectus (from *perficio*, ex *per* and *facio*), perfect. Vi Flos.

Perfoliatus (from *per* and *folium*), perfoliate, applied a leaf, also to a stem. Vide Caulis.

Perforatus (from *perforor* to be pierced through), p forated, synonymous with *punctatus*. Vide Folium

Perianthium (from περι and ανθος, *flos*), the flower-cu properly so called, which supports the flower a fruit. There are seven kinds of Perianths, which a the following, viz.

Amentum, a catkin, as in *Corylus Avellana*.

Calyptra, the calyx of the mosses.

Calyx auctus, an increased calyx, which has a r of leaves distinct from the flower-cup, as in *Dia thus barbatus*.

Gluma, the husky covering of the grasses.

Involucrum partiale, the partial calyx which is plac under the lesser umbel, as in *Conium maculatum*

Involucrum universale; the universal calyx of

umbelliferous flower is placed under the larger or general umbel, as in *Daucus Carota*.

Spatha, a sheath, as in the genus *Narcissus*.

Volva, the calyx of the tribe of Fungi.

Pericarpium (from περι and καρπος, *fructus*), the seed-vessel which is formed from an enlarged germen. It is not an essential part, as some plants have naked seeds. It is composed either of a pulpy, woody, or leathery substance, as the following, viz.

Bacca, a berry, a species of seed-vessel of a fleshy nature, containing one or more seeds enveloped in pulp, as in the genus *Ribes*, &c.

Capsula, a capsule is a dry seed-vessel, of a woody, coriaceous, or membranous substance, composed of valves and dissepiments, and discharging its seeds by orifices or pores, as in the genera *Campanula*, *Papaver*, &c.

Coccum, a dry seed-vessel, more or less aggregated, whose sides are elastic, projecting its seeds with great force, as in the genus *Euphorbia*.

Drupa, a species of fruit, consisting of a fleshy coat, which does not separate into valves: it contains a hard and bony nut, as is exemplified in *Prunus domestica*, *Cerasus*, &c.

Folliculus, a follicle or bag, a species of seed-vessel with one valve and one cell, which bursts lengthways, and bearing its seeds on or near its edges, or on a receptacle parallel therewith, as in the genera *Vinca*, *Pæonia*, &c.

Legumen, a legumen, a species of pericarp without any longitudinal partition, bearing its seeds along one side of its margin only, which are fixed to the suture, as in the genera *Pisum*, *Lathyrus*, and all papilionaceous flowers.

Pomum, an apple, a species of *drupa*, composed of a fleshy fruit, which internally encloses a capsule, as in *Pyrus domestica*, *Malus*, &c.

Samara, a capsule of a compressed form, and dry coriaceous nature, having one or two cells. It falls off entire, and is dilated into a wing at the summit or sides, as in the genera *Ulmus*, *Acer*, &c.

Silicula, a pouch, a pod of a short or rounded figure, broader than long, as in *Draba verna*.

Siliqua, a pod, a long, dry, solitary seed-vessel, consisting of two valves, separated by a linear dissepiment, along the edge of which the seeds are arranged alternately: it is much longer than broad, as in the genera *Cheiranthus*, *Cardamine*, &c.

Utriculus, a bladder which falls with the seed, as in the genus *Chenopodium*.

Perichætium (from περι and χαιτα, *juba*), an involucrum which surrounds the base of the *seta* or fruitstalk of some mosses, as in the genus *Polytrichum*, &c.

Periclinium (from περι, *around*, and κλινη, *a couch*), a term used by Cassini to denote the common calyx of compound flowers.

Peridium, a thin membrane in some Fungi, which separates in various ways, under which lie the seeds or seed-bearing bodies, as in the genera *Lycoperdon*, *Trichia*, and *Nidularia*.

Periginus; the *stamina* perigina are those which spring from the same plane with the pistils.

Perispermium (from περι and σπερμα), a substance of an albuminous nature, lying in the curved embryon, as is exemplified in some of the *Polygoneæ* and *Caryophylleæ*.

Perisphæricus (from περι and σφαιρα), the same as *Radialis.*

Peristoma (from περι and στομα); the peristome is a fringe which borders the mouth of the *theca* or capsule of some mosses, as in the genera *Hypnum, Tortula, Polytrichum,* &c. It is sometimes double.

Perpendicularis (from *per* and *pendeo*), perpendicular.

Persistens (from *persisto*), abiding, applied to the calyx, leaves, and also to the stipule.

Personatus (from *persona*), personate. Vide Corolla.

Perula, a pouch; a species of nectarium, in which, besides the *calcar*, or spur, there is another small sac formed by the prolongation of the base of the calyx, as in some of the *Orchideæ.*

Pes (from πους), a foot; a measure of twelve inches.

Petaliformis (from *petalum* and *forma*), petal-shaped. Vide Stigma.

Petalinus (from πεταλον). Vide Nectarium.

Petalostemones (from πεταλον and στημων), a term which denotes those flowers which have their filaments placed within the corolla.

Petalum (from πεταλον), a petal, a single division of a polypetalous corolla, the upper part of which is called the *lamina*, or plate, the lower part *unguis*, or claw.

Petiolaris (from *petiolus*), when a tendril proceeds from the footstalk of a leaf, it is said to be petiolate.

Petiolatus (from *petiolus*), petiolated. Vide Folium.

Petiolus (dimin. from *pes*), the petiole or footstalk which supports the leaf. It is not essential, as not being always present; when wanting, the leaf is termed sessile. There are also appendages attached to the footstalk of some leaves. The following are the different varieties:

Petiolus *alatus*, winged, when it has on each side a por-

tion of expansion separate from the rest of the leaf, as in the genus *Citrus*.

Petiolus *amplexans*, when partially embracing the stem.

—— *canaliculatus*, channelled, when hollowed out.

—— *compositus*, compound, consisting of one common footstalk divided into several parts.

—— *compressus*, compressed, flattened on both sides, as is exemplified in the genus *Mimosa*.

—— *concavus*, concave, when the petiole is much dilated.

—— *floriferus*, when flowers are seated upon it, as in *Turnera ulmifolia*.

—— *glanduliferus*, gland-bearing, when there are glands seated upon it, as in the genus *Passiflora*, and in *Ricinus communis*.

—— *inflatus*, blown out like a bladder, serving to float the leaves of some aquatic plants, as those of *Trapa natans*.

—— *partiales* seu *proprii*, are those which support the leaflets of a compound flower.

—— *primarius*, the common petiole is termed primary.

—— *secundarii*, the immediate division of the primary are termed secondary.

—— *semiteres*, half-rounded, being flat on one side.

—— *simplex*, simple, consisting of one piece only, as in all simple leaves.

—— *spinescens*, when it becomes hard and thorny.

—— *stipuliferus*, bearing stipules, when there are membranous expansions entirely separate from the leaf which is attached to the petiole, as in the genus *Rosa*.

—— *striatus*, striated, when marked with streaks.

—— *sulcatus*, furrowed, when marked with deep lines.

—— *ternarii*, the divisions of secondary are called ternary.

Petiolus *vaginans*, sheathing, when completely wrapped round the stem, as is exemplified in the Grasses.

Phœniceus (from φοινικεος), the colour of cinnabar, with a slight tinge of blue.

Phyllodium (from φυλλον), when the leafstalk assumes the appearance of a leaf, as in the genus *Phyllanthus*.

Pileatus seu pileiformis (from *pileus*), cap-shaped.

Pileus (from πιλος), the cap, the expanded part placed upon the top of the stalk in some of the Fungi, as is exemplified in the genus *Agaricus*. It is of various forms and consistencies, as the following, viz.

Pileus *campanulatus*, bell-shaped, when it is very convex above, and spreading below in the form of a bell, as in *Agaricus fimetarius*.

—— *concavus*, when there is a depression in the upper surface.

—— *convexus*, when the upper surface is raised.

—— *dimidiatus*, dimidiate, when one side appears to be taken off, as in *Hydnum auriscalpium*.

—— *planus*, when the expansion is quite flat.

—— *sessilis* seu *acaulis*, when the stem is wanting.

—— *squamosus*, scaly, when it is covered with imbricated scales, which are of a different colour from the surface itself, as in *Agaricus muscarius*.

—— *squarrosus*, when the scales stand up from the surface.

—— *stipitatus*, when supported on a stalk.

—— *umbonatus*, bossed, having a prominent point in the centre.

—— *viscidus*, viscid, when the upper surface is covered with a clammy exudation.

Piliferus (from *pilus* and *fero*), applied to a leaf which produces a hair at the apex, as *Polytrichum piliferum*.

Pilosus (from *pilus*), hairy. Vide Folium.

Pilus (from πιλος), a hair, a slender body which has some

degree of stiffness, and which serves for the covering of plants. Hairs are supposed to be organs of transpiration. The following are the different forms, viz.

Pilus *acicularis*, needle-shaped, when long and very fine at the point.

—— *articulatus*, jointed, when divided in regular and somewhat contracted members, having the appearance of the antennæ of some insects, as in *Veronica aphylla*, *Lamium purpureum*, and *Sonchus oleraceus*.

—— *bulbosus*, having a round bulb-like appendage at the base, as *Centaurea Jacea*.

—— *furcatus*, forked, having the appearance of a fork, as in *Apargia hispida*.

—— *nodosus*, knotted, when there are regular knobs, with interstices between them.

—— *simplex*, when not divided, and of an equal filiform appearance.

—— *subulatus*, awl-shaped, when it is short and strong, as in *Borago officinalis*.

—— *uncinatus*, when bent like a hook, as in *Scabiosa succisa*.

Pinna (from πινα, *a feather*), a leaflet of a compound leaf.

Pinnatifidus (from *pinna* and *fissus*, à *findo*, to cleave), pinnatifid. Vide Folium.

Pinnatus (from *pinna*), winged, applied to a leaf.

Pinnula (dimin. from *pinna*), the leaflet of a winged leaf again divided.

Pistilliferus (from *pistillum* and *fero*), applied to a flower which bears pistils only.

Pistillum (from *pinso*, *pistum*, i. e. *tundo*), the pistil or pointal, an organ which has the appearance of a column standing most generally in the centre of the flower. When perfect, it is composed of three parts;

the *stigma*, which is placed at the summit, for the purpose of receiving the pollen from the anthers; the *style*, which is situated upon the *germen*, but it is non-essential, as being sometimes wanting; the *germen*, which encloses the seed.

Pixidatus, a mode of foliation, in which one leaf is let into another by a joint.

Placenta from πλακους), the receptacle in which the embryo of the seed derives its nourishment.

Placentatio (*placenta*, à πλακους), the disposition of the cotyledons during the germination of the seeds.

Planiusculus (dimin. from *planus*), a little flattened.

Planta, a plant.

Planus (from απλατης), flat. Vide Folium.

Plenus (from *pleo*, à πλεος), full. Vide Flos.

Plica (from *plico*), a fold.

Plicativus. Vide Æstivatio.

Plicatus (from *plecto*, à πλεκω), folded or plaited. Vide Folium.

Plumbeus (from *plumbum*), lead-coloured.

Plumosus (from *pluma*), feathery. Vide Pappus.

Plumula (dimin. from *pluma*); the plumule is the scaly or feathery part of the corculum which ascends, and becomes the stem or trunk. It lies within the cavity of the seed-lobes, and is terminated by a small branch, which afterwards becomes the true leaf.

Podetium (from πους), a term used for the fruit-stalk of the Lichens.

Podospermum (from πους and σπερμα), a term used by some authors to denote the umbilical cord.

Pollen (from παλη), the farina or dust which is contained within the anthers, which, when the flower arrives at maturity, is discharged upon the stigma: it is essential to fructification.

Pollex, the length of the last joint of the thumb, which is about an inch.

Polyadelphia (from πολυς, *multus*, and αδελφια, *fraternitas*), the eighteenth class of the Linnæan system, containing plants with perfect flowers, which have their stamens united at the bottom into more than two separate bundles or brotherhoods.

Polyandria (from πολυς, *multus*, and ανηρ, *vir*), the thirteenth class of the Linnæan system, containing plants which have perfect flowers, and their stamens, which are numerous, inserted into the receptacle.

Polycotyledones (from πολυς and κοτυλη), a seed which produces more than two cotyledons or seed-lobes, as those of the *Pinus sylvestris* and *Lepidium sativum*.

Polygamia (from πολυς, *multus*, and γαμος, *nuptiæ*), the twenty-third class of the Linnæan system, containing those plants which have perfect flowers and dicecious flowers on the same or on different plants of the same species.

Polygamia *æqualis*, the first order of the class *Syngenesia*, having ligulate or strap-shaped florets, which are perfect, and each bearing a seed, as in *Leontodon Taraxacum*.

—— *superflua*, the second order of the class *Syngenesia*, containing florets in the disk perfect, bearing stamens and pistils, those in the circumference bearing pistils only, both producing seed; the corolla is radiate, as in *Bellis perennis*.

—— *frustranea*, the third order of the class *Syngenesia*, which has florets in the disk perfect, those in the circumference abortive, except some few genera, which have rudiments of pistils in their radiant florets, as those of *Centaurea nigra*.

—— *necessaria*, the fourth order of the class *Syngenesia*,

containing such flowers as have florets in the disk which bear stamens only, those in the circumference bearing pistils only, both being necessary to each other, as in *Calendula arvensis.*

Polygamia *segregata*, the fifth order of the class *Syngenesia*, containing several florets, either simple or compound, having united tubular anthers, and a partial calyx, all united into one common calyx, as in the genus *Echinops.*

Polygonus (from πολυς and γωνια), many-edged. Vide Caulis.

Polygynia (from πολυς, *multus*, and γυνη, *uxor*), the thirteenth order of the Linnæan system, containing such plants as have perfect flowers with many pistils.

Polypetalus (from πολυς and πεταλον), applied to a corolla which has many leaves.

Polyphyllus (from πολυς and φυλλον), applied to a calyx which has many leaves.

Polyspermus (from πολυς and σπερμα), many-seeded. Vide Capsula.

Polystemones (from πολυς and στημων), a term used for those plants which have many stamens.

Pomeridianus (from *post* and *meridies*), a term used for those plants whose flowers expand immediately after mid-day.

Pomum (from πωμα), an apple. Vide Pericarpium.

Pori (from πωρος); the pores of the Fungi are small holes under the pileus, which have the appearance of being made with the point of a needle; these are peculiar to the genus *Boletus.*

Porosus (from *porus*), being of a spongy nature.

Poruli (dimin. from *pori*), secondary pores.

Posticus (from *post* ut *anticus*, ab *ante*), when one organ takes its position behind another.

Præcox (from *præ* and *coquo*), early flowering. It is very frequently met with as a trivial name, as *Aira præcox, Barbarea præcox, Carex præcox*, &c.

Præmorsus (from *præmordeor* (when the end of a part terminates abruptly, it is said to be bitten off. Vide Radix.

Prasinus (from πρασινος), a variety of green, with a mixture of grey.

Pratensis (from *pratum*), meadowy, a trivial name to some plants whose natural place of growth is that of meadows, as *Hordeum pratense, Cnicus pratensis*, &c.

Primarius (from *primus*). Vide Petiolus.

Prismaticus (from πρισμα), prismatic or prism-shaped, applied to the calyx.

Proboscideus (from *probosis*, à Gr. προ and βοσκω, *pasco*), shaped like an elephant's trunk.

Procumbens (from *pro* and *cumbo*), procumbent, applied to a prostrate stem.

Prolifer (from *proles* and *fero*), proliferous. Vide Flos.

Prominens (from *pro* and *mineo*), projecting, when an organ stands out beyond the valves of the pericarp, as in *Brassica oleracea*, and many others in the class *Tetradynamia*.

Pronus (from προνος), the lower surface of a leaf.

Propago (from προ and πηγνυω), the simple leafless bud of the moss tribe, which proceeds from the mother plant, and which, after due time, takes root, and becomes itself a new one. It is sometimes entirely naked, and sometimes it is contained in a *scyphus* or small cup, as in the genus *Marchantia*.

Proprius (from *propè*), proper. Vide Calyx.

Prostratus (from *prosternor*), applied the same as *procumbens*.

Pruina (from *perurendo*), hoariness, a species of mealy

substance, which appears on the surface of some plants.

Pruinosus (from *pruina*, frost). Vide Folium.

Pubertas (from *pubes*), the time at which plants arrive at the full exercise of their functions.

Pubes (from *pubeo*), hair or down, a species of pubescence which is observed on the surface of some plants, also upon seeds.

Pubescens (from *pubesco*), when a surface is covered with small hairs.

Pullus (from πιλος, i. e. μιλας, *niger*), a black passing somewhat into a green, as the fruit of *Carex pulla*.

Pulposus (from *pulpa*), pulpy, applied to a leaf which is thick, and of a pulpy consistence, like a plum, as in *Mesembryanthemum veruculatum:* it is also applied to a receptacle.

Pulveraceus (from *pulvis*), dusty.

Pulveratus (from *pulveror*), powdered. Vide Folium.

Pulvis, dust.

Pumilus (from πυγμη), dwarfish.

Punctatus (from *punctum*, à *pungo*), dotted. Vide Folium.

Pungens (from *pungo*), sharp and prickly.

Puniceus, a carmine-red.

Purpureo-cœruleus, violet-coloured.

Purpurascens (dimin. from *purpura*), becoming purple.

Purpureus (from πορφυρεος), a purple colour.

Pusillus (from *pusio*), weak, feeble.

Pustulosus (from *pustula*), pustular.

Putamen (from *puto*), the shell of a nut. In consistence it is either

—— *chartaceum*, paper-like, as in *Pimpinella Saxifraga*.

—— *coriaceum*, leathery, as in the genus *Hyphœne*.

—— *lapideum*, hard and strong, as in the genus *Prunus*.

—— *lignosum*, woody, as in *Corylus Avellana*.

Putamen *osseum*, bony.

Pyramidalis (from πυραμις, *pyramis*), an organ in the form of a pyramid, which is truncated below, and gradually tapering towards the apex.

Pyriformis (from *pyrus* and *forma*), pear-shaped, when the diameter of the upper extremity is much larger than that of the lower one, which is exemplified in the capsules of some mosses, as *Bryum pyriforme*, *Gymnostomum pyriforme*, &c.

Pyxidium (πυξος, *pyxis*, a box), a term given by some authors to an *utriculus* containing one seed only, and which bursts crossways, as in the genus *Plantago*. *Capsula circumscissa* is the term now employed to express the above appearance.

Q

Quadrangularis (from *quatuor*, four, and *angulus*, an angle), a term applied to a stem or leaf, which has four angles.

Quadricarinatus (from *quatuor*, four, and *carina*, a keel), This term is applied to those capsules which have four projections arising from them, shaped like the keels of ships.

Quadricapsularis (from *quatuor*, four, and *capsula*, a capsule); plants which produce four capsules arising from the same peduncle are called quadricapsular.

Quadridentatus (from *quatuor*, four, and *dens*, a tooth), applied to a leaf which has only four projections at its margin like teeth.

Quadrifariam, when hairs on a stem are pointing in four different directions.

Quadrifidus (from *quatuor* and *findor*, to be cleft), applied to a leaf which has four clefts. Vide Folium.

Quadrijugus (from *quatuor*, four, and *jugum*, a yoke). Vide Folium.

Quadrilobatus (from *quatuor* and *lobus*, a lobe), four-lobed. Vide Folium.

Quadrilocularis (from *quatuor* and *loculus*, a division or cell), a term applied to a capsule which has four loculaments or cells containing seeds; exemplified in *Euonymus europæus*.

Quadripartitus (from *quatuor* and *pars*, a division), four-parted. Vide Folium.

Quadrivalvis (from *quatuor* and *valva*, a door or opening), a term applied to a capsule which, when the seeds are ripe, opens in four different directions for the purpose of discharging them.

Quadruplicato-pinnatus. Vide Frons.

Quaternus. Vide Folium.

Quinatus. Vide Folium.

Quincuncialis (from *quinque*, five, and *uncia*, a measure). Vide Æstivatio.

Quinquangularis (from *quinque*, five, and *angulus*, an angle), applied to a leaf or stem having five angles.

Quinquefariam, pointing in five different directions.

Quinquelobatus (from *quinque* five, and *lobus*, a lobe), five-lobed; applied to a leaf.

Quinquelocularis (from *quinque*, five, and *loculus*, a division or cell), applied to a capsule which has five loculaments or cells.

Quinquenervis (from *quinque*, five, and *nervus*, a nerve, *à* Gr. νεῦρον), applied to a leaf which is provided with five nerves.

Quinquepartitus (from *quinque*, five, and *pars*, a division), when a leaf has five separate divisions extending to the base.

Quinquevalvis (from *quinque*, five, and *valvæ*, doors or openings), applied to a capsule with five valves.

Quinquefidus (from *quinque*, and *findor*), five-cleft.

Quintuplinervis. Vide Folium.
Quintuplicato-pinnatus. Vide Frons.
Quinus (from *quinque*, five), five together. Vide Folium.

R

Racemus (from ῥαξ, ῥαχος, a *branch*), a cluster or raceme; a mode of inflorescence which consists of numerous rather distant flowers, each on their own proper footstalk, and all connected to a common one, as is well exemplified in *Ribes rubrum, nigrum,* &c. The following are the various kinds of racemes, viz.

Racemus *aggregatus;* a raceme is said to be aggregated when several are collected together, as in *Actæa racemosa.*

—— *compositus,* a compound raceme consists of its being branched, as in *Solanum Dulcamara.*

—— *simplex,* when there are no branches, as in *Ribes rubrum.*

—— *secundus,* a raceme is said to be secund when the proper footstalks of the flowers proceed from every part of the common stalk, and all point towards one side, as in *Teucrium Scorodonia.*

—— *unilateralis,* it is unilateral when the proper footstalks proceed from only one side of the common one, as in *Pyrola secunda.*

A raceme is either

—— *erectus,* erect, as in *Ribes alpinum* and *spicatum.*

—— *laxus,* loose easily to be bent, as in *Solanum carolinense.*

—— *pendulus,* hanging down, as in *Cytisus Laburnum, Ribes rubrum,* &c.

—— *strictus,* when bent with difficulty, as in *Ononis cernua.*

It is either

Racemus *bracteatus*, bracteate, having floral leaves, as in *Andromeda racemosa* and *bracteata*.

—— *foliatus*, foliate, as in *Chenopodium ambrosioides*.

—— *glaber*, smooth, as in *Ribes rubrum*.

—— *pilosus*, hairy, as in *Ribes nigrum*.

Rachis (from ῥαχίς, the spine of the back), a term used to denote the common footstalk of spikes or panicles, as is particularly exemplified in some of the grasses, the genera *Lolium*, *Triticum*, *Hordeum*, &c. It also represents the midrib of a leaf, and the leaf-stalk of some of the Ferns, as in the genera *Aspidium*, *Asplenium*, &c.

Radialis (from *radius*, a ray or sunbeam), the part which is within the circumference of a compound radiate flower.

Radiatus, radiated. Vide Corolla composita.

Radicalis (from *radix*, a root), a term applied to the root-leaf of a plant, exemplified in the genus *Primula*.

Radicans, rooting. Vide Caulis.

Radicatio (from *radix*, a root), a term expressive of the form and disposition of the root.

Radicatus, radicated; the same as *radicalis*.

Radiciformis (from *radix*, a root, and *forma*, a shape), root-like, the form or shape of a root.

Radicinus, having the consistency of a root.

Radicula (dimin. from *radix*, a root), a radicle or rootlet: the fibres which proceed from the body of the root are called *radiculæ*; these are essential to the nourishment and support of the plant, being as it were absorbent vessels.

Radius (from ῥάβδος, *virga*), a ray; the exterior ligulate sometimes tubular florets of a compound radiate corolla.

Radix (from ῥάδιξ, signifying a branch), the root; the descending part of a plant, which is composed of a caudex, or body of the root, and radiculæ, the fibres which serve to attract moisture from the soil, and to commu-

nicate it to the ascending part of the plant. Roots are of three kinds, simple, branched, and articulated.

Of Simple Roots.—Simple roots are either conical, subglobular, or fibrous, viz.

Radix *conica*, a conical-shaped root is broader at the top, and gradually tapering downwards, and is furnished with lateral fibres towards its smaller extremity. Some conical roots proceed in a horizontal direction, as for instance the root of *Sanguinaria Canadensis*, a plant which is an inhabitant of North America. But the most familiar varieties known to us are the following, viz.

Radix *fusiformis*, a root is spindle-shaped when it tapers in a perpendicular direction to a very fine point, as in *Daucus Carota, Raphanus sativus, Beta vulgaris*, &c.

—— *præmorsa*, a truncated conical root, which ends abruptly, giving it the appearance of being bitten off, as in *Plantago major* and *Scabiosa succisa*. The *Primula vulgaris* is a curious modification of an abrupt root. It is formed by its lower leaves annually decaying, and leaving a portion of their base at the part of their attachment, which swells and becomes more succulent. The plant sinking in the ground, lateral fibres are formed above each of these portions, so that the buried part of the plant, owing to similar decay and sinking annually, assumes the character of a long caudex, which bears a strong resemblance to a notched or articulated root.

—— *subrotunda*, a subglobular root is almost of a spherical shape, terminating in one or more small tapering points. Of this there are two kinds:

—— *napiformis*, this is a species of subglobular root, which bellies out above, and terminates below in a tapering, conical form; which lower part is furnished with fibres, as in *Brassica Rapa*.

—— *placentiformis*, is a flattened globular root, which

has the appearance of a globular caudex compressed both above and below. It has no tapering point, but a number of fibrils which proceed from the centre of the lower depression, as in *Cyclamen europæum.*

Radix *fibrosa,* a fibrous root consists of numerous small thread-shaped bodies, which serve to convey nourishment to the larger part of the root, as is observed in all bulbous and tuberous roots. Also the majority of annual plants, and most of the grasses have fibrous roots. The following are the varieties:

Radix *filiformis,* a filiform root is composed of distinct and separate thread-like rootlets, as in the genus *Lemna,* &c.

—— *capillaris,* a capillary root consists of a number of very fine fibres; it is exemplified in *Festuca ovina,* and many other of the grasses.

—— *comosa,* a tufted root, as in *Aspidium Filix-mas.*

—— *funiliformis;* the funiliform root consists of strong cord-like fibres, which are more or less fine, generally simple, but sometimes they are ramified. The Palm tribe have this kind of root, the cords of which are very strong, and diverge in order to take firm hold of the ground to maintain the perpendicular height of the plant.

—— *ramosa,* a branched root consists of a caudex or main root, which is divided into lateral branches; these again are subdivided, and ultimately terminate in absorbent fibrils. This form of root is the most general among trees and shrubs; it is sometimes met with in herbaceous plants. Of this there are two varieties, viz.

—— *dentata,* a species of dentated root, which has a fleshy caudex with short branches and teeth-like prolongations, as in *Corallorrhiza innata.*

—— *ramosa,* the branched root, as in *Inula Helenium, Polygala senega,* &c.

Radix *articulata,* the articulated or jointed root has the appearance of being formed of distinct pieces united together as it were into one, so as to form a connection with the whole, each joint having fibres proceeding from it. The following are the varieties,

—— *simplicis articulata,* a simple jointed root is composed of pieces attached to each other longitudinally, as in *Asarum Canadense.*

—— *contorta,* a contorted or twisted root. Although this cannot be regarded as an articulated root, it may, from its form, be classed among the kneed roots. The *Polygonum Bistorta* affords the best example of this species, as its name originates from the double turn which the root makes.

—— *filipendula,* a pendulous root is a species of nodular root composed of a knob or tuber hanging from the end of each rootlet, as in *Spiræa filipendula.*

—— *geniculata,* a root is termed geniculated when its articulations are bent in the form of the knee, as in *Gratiola officinalis* and *Convallaria polygonatum.*

—— *moniliformis,* necklace-like, when an articulated root has nodular joints united together, so as to resemble the beads of a necklace, as is exemplified in *Avena elatior.*

Ramentaceus (from *ramentum,* a chip or shaving). Vide Caulis.

Ramentum (from *radendo*), a rament or scale which appears on the outside of a bud, serving to protect it from the severity of cold. It appears on all trees, and falls soon after the bursting of the bud. On the oak it remains a short time, and forms an apparent stipula. On the *Pinus sylvestris* it falls immediately on the bursting of the bud.

Ramosissimus, very much branched.

Ramosus (from *ramus*, a branch), branched. Vide Caulis.

Ramulus (dimin. of *ramus*), a twig or smaller branch; the subdivision of a branch.

Ramus (from ερεμνος, a *bough* or *branch*), an arm of a tree, the subdivision of a stem upwards.

Receptaculum (from *recipio*, to receive), the receptacle; the base by which the parts of fructification are supported. The different species of receptacles are as follows:

Receptaculum *commune*, a common receptacle supports an aggregate or head of flowers, so that, if any one be removed, it spoils the uniformity of the whole. This also is exemplified in the umbel, cyme, spadix, and in compound flowers.

—— *floris*, the receptacle of the flower is the base to which the parts of the flower, exclusive of the germ, are fixed.

—— *fructificationis*, the receptacle of fructification is common to both flower and fruit; it embraces the corolla and germen.

—— *fructus*, the receptacle of the fruit is the base of the fruit only, being remote from the receptacle of the flower.

—— *proprium*, a proper receptacle is that which supports the parts of a single fructification. Of this kind is the receptacle of all simple flowers.

—— *seminum*, the receptacle of the seeds is the base to which the seeds are fixed, as is exemplified in the genus *Adonis*.

The Receptacle has various forms and consistencies, which are specified in the following varieties.

Receptaculum *alveolatum*, a receptacle is said to be honeycombed, when the surface is divided into cells which give it that appearance; each of the cells contains a seed, as in the genus *Onopordum*.

Receptaculum *carnosum*, when composed of a fleshy or pulpy substance, as in the genus *Ficus*.

—— *conicum*, when gradually tapering to a round point, as in the genus *Bellis*.

—— *convexum*, convex, when it is somewhat elevated in the centre, as in the genus *Anthemis*.

—— *favosum*. Vide Alveolatum.

—— *globosum*, globular, when it is of a round, spherical form, as in the genus *Arctium*.

—— *nudum*, naked, when it is without scales, hairs, or bristles, as in the genus *Tragopogon*.

—— *ovatum*, egg-shaped, when the apex is rounded, as in the genus *Comarum*.

—— *planum*, flat, being perfectly even, as in the genus *Bidens*.

—— *paleaceum*, chaffy, when covered with membranaceous scales, as in the genus *Serratula*.

—— *pilosum*, hairy, when it is set with stiff short hairs, as in the genera *Cnicus* and *Carduus*.

—— *pulposum*. Vide Carnosum.

—— *punctatum*, dotted, when the surface is covered with small deep holes, as in *Leontodon Taraxacum*, &c.

—— *scrobiculatum*, when there are deep round pits upon the surface, as in the genus *Solidago*.

—— *setosum*, bristly, when covered with stiff bristle-like hairs, as in the genus *Centaurea*.

—— *siccum*, dry, when of a hard substance, as in the genus *Tormentilla*.

—— *subulatum*, awl-shaped, when tapering to a fine point.

—— *villosum*, shaggy, when it is set with long soft hairs, as in *Artemisia Absinthium*.

Reclinatus (from *re* and *clino*, to bend, *à* Gr. κλινω), applied to a leaf which is bent downwards. Vide Folium.

Rectiusculus, straightish, or a little straight.

Rectus, straight, making a right line. Vide Caulis.

Recurvatus (from *re* and *curvo*, to bend downwards), applied to a leaf which is bent downwards. Vide Folium.

Regularis (from *rego*, to rule), applied to a corolla which is equal in all its parts. Vide Corolla.

Reflexus (from *re-flecto*, to bend or incline), applied to the leaf; also to the stem. Vide Folium.

Refractus (from *refringor*, to be broken), refracted, bent back at an acute angle. Vide Pedunculus.

Remotus (from *removeo*, to remove), remote, distant; applied to verticillate flowers, when the whorls are far apart from each other.

Reniformis (from *ren*, the kidney, and *forma*, a shape, *à* Gr. φεν), kidney-shaped. Vide Folium.

Repandus (from *re* and *pando*, to spread). Vide Folium.

Repens (from *repo*, to creep, *à* Gr. ερπω), creeping. Vide Caulis.

Reptans (from *repto*, à *repo*), creeping along; applied the same as *repens*.

Resupinatus (from *resupino*, to turn upside down), applied to a leaf or corolla which is reversed according to its general mode of growing.

Reticulato-venosus. Vide Folium.

Reticulatus, reticulated. Vide Corolla.

Reticulum (from *rete*, a net), net-work. This term is applied to a corolla or petal which has distinct veins decussating each other, as *Geranium striatum*.

Retroflexus (from *retro* and *flecto*, to bend), applied to a stem which is bent in different directions in a distorted manner. It appears to differ from *reflexus* in a slight degree, the latter having a simple bending back.

Retrofractus (from *retro* and *frangor*, to be broken), applied to a peduncle which has the appearance of being broken or bent back.

Retrorsum, a direction backward.

Retusus (from *retundqr*, to be blunted), blunted. Vide Folium.

Revolutus (from *re* and *volvo*, to roll), rolled back. Vide Folium.

Rhizoma (from Gr. ῥιζα, *radix*, a root), the root-stock, the part in biennial and perennial plants from which the stem takes its origin for the succeeding year, as in *Daucus Carota* and *Astragalus hypoglottis*. In trees and shrubs it is of a woody nature, and produces shoots for a succession of plants.

Rhombœus. Vide Deltoideus.

Rhomboideus (from Gr. ῥομβοειδης), rhomboid. Vide Folium.

Rictus (from *ringo*, to grin), the opening between the two lips of a labiate corolla.

Rigidus (from *rigeo*, Gr. ῥυγεω, *horreo*), applied to leaves and bristles which are rigid, stiff and inflexible, in opposition to *laxus*.

Rimosus (from *rima*, a rift), rifted or chinked, a term applied to the outer bark of trees, which abounds with clefts or chinks. This is fully exemplified in the advanced age of the Oak.

Ringens (from ῥινες, *nares*, the nostrils), ringent. Vide Corolla.

Rosaceus (from *rosa*, a rose), a flower is so called, whose petals are placed in a rose-like form.

Roseus, rose-coloured.

Rostellum (from *rostrum*, a beak), the simple scaly part of the corculum, which descends and becomes the root.

Rostratus, beaked.

Rostrum (from *rodo*, to gnaw, à *rado*), a beak, an elongation of the seed-vessel, which is particularly exemplified in the genera *Erodium* and *Geranium*. It is

sometimes found in a permanent style, and also upon some naked seeds.

Rotatus (from *rota*, a wheel), wheel-shaped. Vide Corolla.

Rotundatus (from *rotundo*, to make round), rounded. Vide Squama.

Rubellus seu Rufus (dimin. from *ruber*, red), reddish, or slightly red.

Ruber (from Gr. ἐρυθρος), a deep red colour.

Rubigineus, seu rubiginosus (from *rubigo*, rust), a rusty colour.

Ruderalis, seu ruderatus (from *rudus*, rubbish, à *ruo*), rubbishy.

Rugosus (from *ruga*, a wrinkle), rugged or wrinkled. Vide Folium.

Runcinatus (from *runcina*, a large saw), runcinated. Vide Folium.

Ruptinervus (from *rumpor*, to be broken), when a nerve of a leaf is interrupted or does not extend to the base.

S

Saccharinus (from σακχαρον, *saccharum*, sugar), tasting sweet, or having the appearance of sugar.

Sagittatus (from *sagitta*, an arrow), arrow-shaped. Vide Folium.

Samara, a species of winged pericarp, containing one or more seeds, which are surrounded by a thin transparent membrane, either in its whole circumference or at the point, or even on the side. It does not open spontaneously. Examples of this kind are found in the genera *Ulmus*, *Acer*, *Fraxinus*, *Betula*, and many others.

Sanguineus (from *sanguis*, blood), a blood-red colour.

Sarcobasis (from σαρξ, *caro*, flesh), the swelling of the receptacle during the ripening of the seed.

Sarmentosus (from *sarmentum*, a twig or trailing stem), trailing. Vide Caulis.

Sarmentum (from *αἴρω*, *sarpo*, to prune, et apud *ἄρπη*, *falx*, a sickle), a sarment, a filiform trailing stem which runs along the ground, taking root at every joint, and producing new plants of the same kind. This mode of propagation is exemplified in *Saxifraga sarmentosa*; also in the genus *Fragaria*, and others of the like nature.

Saturatè-virens, a grass-green colour.

Scaber (from *scabo*, to scratch), rough with tubercles and prominent stiff hairs.

Scabrities (from *scaber*, rough, *à* Gr. *σκάπτω*, *fodio*, to dig), a species of pubescence scattered over the surface of vegetables, which is composed of particles scarcely visible to the naked eye.

Scandens (from *scando*, to mount or climb), climbing. Vide Caulis.

Scapus (from *σκήπτω*, *incumbo*, to lean upon; *σκῆπων*, et *σκηπτῆρον*, *scipio*, a staff), a scape; an herbaceous stem which proceeds immediately from the root, and supports flowers on the top, but no leaves. There are radical leaves at the bottom; whereas a naked stem is destitute of leaves altogether. This is particularly exemplified in the genera *Primula* and *Narcissus*.

Scariosus, scariose; applied to a leaf which is of a membranous, dry substance, sonorous to the touch. Applied also to a perianth which is tough, thin, and semitransparent, as is exemplified in *Statice Armeria*; and to the nectary in *Narcissus poeticus*.

Scobiformis (from *scobs*, grit), scobiform, when formed of a very thin, hollow, membranous aril, containing a globular free seed in its cavity, as in the genus *Pyrola*, and also in the *Orchideæ*.

Scrobiculatus (from *scrobs*, a ditch or furrow), dotted; applied to the receptacle, also to the seed. Vide Receptaculum, &c.

Scrotiformis (from *scrotum*, a purse or bag), purse-shaped; applied to the capsule of some plants, as in *Thlaspi Bursa-Pastoris*; also to the nectary of some of the *Orchideæ*.

Scutelliformis (from *scutella*, a dish or platter, and *forma*, a resemblance), saucer or shield-shaped.

Scutellum (dimin. from *scutum*, a buckler, à Gr. σκυτος, *pellis*, the skin), a shield; an orbicular concave fructification with a raised rim, peculiar to some Lichens.

Scyfifer (from *scyphus*, a cup, and *fero*, to bear), cup-bearing, when the fructification is of an elevated obconical form like a drinking glass, as is found in some species of Lichens.

Scyfiformis (from *scyphus*, a cup, and *forma*, a resemblance), cup-shaped.

Scyphus (from συφος, à σκυπτω, *excavo*, to hollow out), a cup, a receptacle of fructification in some Lichens, particularly exemplified in the genus *Cenomyce*.

Secretoria (from *secerno*, to put asunder), secretions, a glandular roughness which is sometimes found on the surface of plants.

Sectus (from *seco*, to cut), a leaf is said to be cut when the clefts extend to the central rib; a petal, when the division extends to the base.

Secundus (from *sequundus*, à *sequendo*, from following), a term used in expressing spikes and panicles the flowers of which all lean towards one side.

Segmentum (from *segmen*, à *seco*, to cut or divide), a segment or division of parts.

Segregata (from *segrego*, to disjoin), the fifth division of the order Polygamia, in the class Syngenesia. It derives its name from the florets being separated from each

other by means of partial flower-cups, which support one or more florets and are placed within the common calyx.

Sejugus (from *sex*, six, and *jugum*, a yoke), six-paired. Vide Folium.

Semen (from *sero*, to sow), the seed. It is the rudiment of a future plant. A seed consists of three principal parts; 1st, The integument or outer skin; 2d, The albumen, which forms the cotyledons or seed-lobes; 3d, The corculum or heart of the seed. Some seeds have an *hilum*, or scar; some an *arillus*, or tunic; others a *coronula*, or little crown. The appendages of a seed are a *pappus*, an *ala*, *cauda*, *hamus*, *arista*, or other processes to assist in their dispersion; all of which are explained in their respective places.

The varieties of Forms, Substance, Situation, Magnitude, and Consistency of Seeds, will be found under the following terms, viz.

Semina *acerosa*, needle-shaped, when linear and pointed at the apex.

—— *aculeata*, prickly, as in *Ranunculus arvensis*.

—— *acuminata*, acuminate, ending in a sharp point, as in *Cucumis sativus*.

—— *alata*, winged, when there is a membrane attached, which remains and falls with the seed, as in the genus *Ulmus*, *Fraxinus excelsior*, &c.

—— *angulata*, angular.

—— *apiculata*, apiculate, rough with very short and frequently capitate bristles, as in the genus *Drosera*, &c.

—— *arillata*, when enclosed in an aril, which is the partial covering, and which falls off spontaneously, as in the genera *Jasminum*, *Coffea*, &c.

—— *aristata*, when there is an awn at the apex, as in *Holcus saccharatus*.

—— *callosa*, callous, hard and tough, as in *Citrus medica*.

—— *cancellata*, latticed, having the longitudinal streaks

or furrows decussated by transverse and general ones, as in the genera *Glaucium, Onopordum,* &c.

Semina *caudata,* when ending in a tail, which assists in dispersing the seeds, as in *Clematis vitalba.*

—— *clavata,* when narrow at the base, and thickened at the apex.

—— *cochleata,* when twisted like a screw, or the shell of a snail, as in the genus *Salsola.*

—— *colorata,* coloured, as in *Chærophyllum aureum.*

—— *colyculata,* covered with a bony calyx, as in *Coix lachryma.*

—— *compressa,* compressed, flattened on both sides.

—— *conica,* conical, round and broad at the base, but drawing to a point, as in the genus *Bellium.*

—— *cordata,* heart-shaped.

—— *coriacea,* coriaceous, when stiff, and of a leathery substance.

—— *costata,* ribbed, or millstone-like. Seeds are so named from the thickness of their dorsal furrows, as in the genus *Caucalis.*

—— *curvata,* curved, the apex being bent inwards.

—— *cylindracea,* cylindrical, round, of a columnar form.

—— *cymbiformia.* Vide Lunulata.

—— *echinata,* beset with prickles like a hedgehog, as in *Verbena lapulacea.*

—— *elliptica,* elliptical, somewhat oval, but broader at each end.

—— *erecta,* erect, when standing upright.

—— *filiformia,* filiform, or thread-like.

—— *fungosa,* soft and spongy.

—— *glabra,* glabrous, smooth, void of all roughness, as in *Galium montanum,* the genus *Brassica,* &c.

—— *gibba,* gibbous, when swelled on one side only, as in *Cicer arietinum.*

—— *globosa,* globular, when of a spherical form, as in the

genera *Papaver, Brassica, Pisum,* and many others. This is particularly exemplified in the sporules of some of the *Algæ* tribe.

Semina *hamosa,* when furnished with one or three hooks, as in *Daucus muricatus.*

—— *hirsuta,* rough, having a hairy surface, as in *Anthriscus trichosperma.*

—— *hispida,* hispid, when there are stiff and bristly-like hairs, as in *Daucus Carota.*

—— *lævigata,* smooth and shining, having a polish upon the surface, as in the genus *Amaranthus.*

—— *lanceolata,* lanceolate, much longer than broad, and tapering towards each extremity, as in *Fraxinus excelsior.*

—— *lanata,* woolly, when covered with a soft pubescence, like wool, as in *Anemone hortensis,* &c.

—— *lapidea,* hard, of the consistence of stone, as in the genus *Batschia.*

—— *lenticularia,* lenticular, being convex on both sides, with a circular acute margin.

—— *linearia,* linear, long and narrow, as in the genus *Crucianella.*

—— *lucida,* when the surface is shining, but not perfectly smooth, as in *Lithospermum arvense.*

—— *lunulata,* crescent-shaped, as in *Calendula officinalis.*

—— *maculata,* when there are spots upon the surface, as in *Lupinus luteus.*

—— *magna,* when of a full size, as in the genus *Coccos.*

—— *marginata,* marginate, either thickened at the margin, as in the genus *Cucurbita;* or extenuated, as in the genus *Allamanda.*

—— *media,* of a middle size, between large and small.

—— *minuta,* minute, when like dust or powder, as the *Characeæ, Filices,* and *Musci.*

—— *molendinacea.* Vide Cestata.

Semina *muricata*, muricated, armed with sharp prickles, as in *Ranunculus parviflorus*, *Lithospermum muricatum*, &c.

—— *nidulantia*, nestling, seeds are said to be nestling when dispersed promiscuously through the pulp, as in *Nymphæa alba*.

—— *nitida*. Vide Lævigata.

—— *nuda*, naked seeds are such as are not covered with a pericarp. The class Didynamia and order Gymnospermia exemplifies this; also the compound flowers, and umbelliferous and rough-leaved plants.

—— *oblonga*, oblong, when much longer than broad, as in *Boerhaavia diffusa*.

—— *obtusa*, obtuse, having a blunt point.

—— *orbiculata*, orbicular, being flat, and having a round margin, as in *Ervum Lens*.

—— *ossea*, when of a bony substance, as in the genus *Lithospermum*.

—— *ovata*, egg-shaped, rounded at both ends, but broader at one end than the other, as in *Quercus Robur*.

—— *paleacea*, chaffy, when thin and membranous, compressed and rather rigid, as in the genus *Rhododendron*.

—— *paperrucosa*. Vide Papillosa.

—— *papillosa*, when the surface is covered with fleshy scales or warts, as in the genus *Eryngium*. In the genus *Codon* the tubercles are fleshy, and of a blood-red colour.

—— *papposa*, when a pappus is placed upon the top, which assists in dispersing the seeds, as in *Leontodon Taraxacum*; also the genera *Carduus*, *Cnicus*, &c.

—— *pendula*, when suspended by a filament external to the seed-vessel, as in *Magnolia grandiflora*.

—— *punctata*, dotted, when the surface is punctured. The dots are disposed in either regular or irregular series, as in the genus *Lychnis*.

Semina *reniformia*, kidney-shaped, as in the genus *Phaseolus*.

—— *reticulata*, reticulated, lines upon the surface decussating each other so as to form a net-work. This differs from *cancellatum* only in the lines being irregular; it is exemplified in the genera *Buglossum* and *Hydrocotyle*, and some others.

—— *rotunda*, round, circular.

—— *rotundo-compressa*. Vide Orbiculata.

—— *rostrata*, beaked, when there is a prolongation at the apex, as in the genera *Geranium* and *Erodium*; also in *Scandix Pecten-Veneris*.

—— *rugosa*, wrinkled, rough with tubercles, streaks, and pits, irregularly intermixed, as in the genus *Aconitum*, &c.

—— *scobiformia*, resembling saw-dust, as in the genus *Lycopodium*.

—— *scrobiculata*, scrobiculate, when marked with deep pits, whether distant or contiguous.

—— *simplicia*, simple seeds are such as have neither crown, wing, nor pappus. This is exemplified in all such seeds as are contained within a pericarp.

—— *splendentia*. Vide Lucida.

—— *striata*, streaked, having longitudinal streaks, as in *Conium maculatum*; transverse or oblique, as in the genus *Exacum*; or radiating, as in the genus *Tradescantia*.

—— *subrotunda*, semicircular, as in the genus *Galactia*.

—— *succulenta*, juicy.

—— *sulcata*, furrowed, when there are longitudinal channels, as in *Myrrhis odorata*.

—— *tecta*, covered; such as are contained within a pericarp, whether Capsule, Pod, Berry, or Drupa.

—— *transversim sulcata*, when the furrows are placed transversely, as in the genus *Picris*.

Semina *triquetra*, three-sided, as in the genera *Rheum* and *Rumex*.

—— *tuberculata*, rough with tubercles or thickened elevated dots; muricated, as in the genus *Cynoglossum*.

—— *tunicata*, coated; covered with a thin membrane.

—— *turbinata*, cap-shaped, when broad at the apex and narrow at the base.

—— *vermiculata*, when marked with elevated serpentine streaks, resembling Arabic letters, as in the genus *Momordica*.

—— *villosa*, shaggy, when covered with soft hairs, which form a fine nap like velvet.

Semiamplexicaulis (from *semi*, half, *amplexus*, embracing, and *caulis*, a stem), a term used to specify a leaf embracing the stem half way round.

Semicircularis (from *semi* and *circulus*, a circle), semicircular.

Semicolumnaris (from *semi*, half, and *columna*, a pillar), flat on one side, and round on the other; the same as *semiteres*.

Semicylindraceus (from *semi*, half, and *cylindrus*, a cylinder), semicylindrical.

Semiflosculus, seu Semiflosculosus (from *semi*, half, and *flosculus*, a little flower), a compound flower consisting of strap-shaped florets, exemplified in the class Syngenesia.

Seminalia folia (from *semen*, a seed), the seminal leaves are the expansions of the cotyledons, or seed-lobes, which first appear on the germination of the seed.

Seminatio (from *semen*, a seed), semination; the time at which plants disperse their seeds.

Semiorbiculatus (from *semi*, half, and *orbiculus*, a little ring), hemispherical, being half a sphere.

Semiquinquefidus (from *semi*, half, *quinque*, five, and *findo*, to cleave), half five-cleft.

Semiradiatus (from *semi*, half, and *radius*, a ray), when only one half of the circumference of a compound flower is radiated.

Semireticulatus (from *semi*, half, and *reta*, a net), half net-work like.

Semisagittatus (from *semi*, half, and *sagitta*, a dart or arrow), half arrow-shaped. Vide Stipula.

Semisexfidus (from *semi*, half, *sex*, six, and *findo*, to cleave), half six-cleft.

Semiteres (from *semi*, half, and *teres*, round), half-rounded, flat on one side, and round on the other.

Semivalvis (from *semi*, half, and *valvæ*, doors or gates), applied to a pericarp which has its valves but slightly opened.

Sempervirens, evergreen; applied to plants whose leaves are not regularly deciduous, but remain throughout the year. This is exemplified in the genera *Pinus*, *Laurus*, *Juniperus*, and many others.

Sena, six-fold, when there are six leaves growing together, as in *Galium saxatile*. This is a species of stellate leaf.

Sensibiles (from *sensus*, sense), sensitive plants; those which change the situation of parts on being touched. This peculiar phenomenon is exemplified in the leaf of the *Mimosa sensitiva*, which droops on the instant of being touched. The hairs which are upon the leaf of the *Drosera rotundifolia* close when touched by an insect, which they immediately inclose, and the insect is destroyed. In *Aristolochia clematitis* a remarkable occurrence takes place. Owing to the stamens being much shorter than the pistil, the farina cannot reach the stigma; [consequently the germen cannot become fertile without some provision of nature. Hairs are so situated upon the top of the faux of the corolla, that when an insect enters for the pur-

pose of collecting its honey, they immediately close, and on its endeavouring to escape, it scatters the pollen upon the stigma, which immediately descends to the germen; the corolla soon after withers and falls off, and the insect escapes with its life.

Sepalum, a term denoting the separate parts of a calyx, which are called *sepala*.

Septuplinervius (from *septemplex*, sevenfold, and *nervus*, a nerve), when there are three nerves on each side of the midrib.

Seriales (from *series*, a train or connection), a name given to parts which follow in rows in regular order.

Sericeus (from σηρικον, *sericum*, silk), silky. Vide Folium.

Serotinus (from *serus*, late), this term is applied to such parts as unfold later than others.

Serrato-ciliatus. Vide Folium.

Serrato-dentatus. Vide Folium.

Serratus (from *serra*, a saw), serrated or notched. Vide Folium.

Serrulatus (dimin. from *serra*, a saw), finely serrated or notched.

Sesquialter (from *sesqui*, half as much more as the whole of any part, and *alter*, another), a floret is termed sesquialteral, when a large fertile floret is accompanied by a small abortive one, as in *Aira villosa*. Haller applied this term to flowers in which the stamens are half as many again in number, as the leaves or segments of the calyx or corolla.

Sessilis (from *sessio*, à *sedes*, to sit), sessile or sitting; the term sessile is applied when the footstalk of a leaf or flower is wanting.

Seta (from χαιτα, *seta*, a bristle), a strong, stiff, roundish hair, a species of pubescence frequently found on the

surfaces of leaves and stems, which gives a very harsh and scabrous appearance to the plant. This term is also used for the slender fruitstalk of mosses.

Setaceus (from *seta*, a bristle), bristly. Vide Pappus.

Setosus (from *seta*, a bristle), setose, when the surface is set with stiff hairs, which stand separate. Applied to leaves; also to the receptacle, as in the genus *Centaurea*.

Sexangulatus (from *sex*, six, and *angulus*, an angle), six-cornered. Vide Caulis.

Sexfariam (from *sex*, six, and *farius*, à *fero*, to bear), in six directions; applied to a stem which has hairs placed upon it in six different rows.

Sexfidus (from *sex*, six, and *fissus*, a cleft), six-cleft. Vide Calyx.

Sexlocularis (from *sex*, six, and *loculus*, a partition), six-locular; applied to a capsule.

Sexus; what is called the sexes of plants depends on their having stameniferous, pistiliferous, or perfect flowers. When the stamens and pistils are together in the same flower, such is called a perfect flower. When these are separated, either on the same or on different individuals, such plants are called Androgynous. When there are both perfect flowers and stameniferous and pistiliferous flowers placed on the same or on different plants, such are denominated Polygamous.

Siccus (from *sicco*, to suck or drink up), dry, withered; the same as *exsiccus*.

Silicula (dimin. from *siliqua*, a pod), a pouch, a species of two-valved pericarp, of a short roundish figure, having its seeds fixed to both sutures; its longitudinal and transverse diameters are nearly equal. Its Shape, Figure, and Consistency will be seen in the following varieties, viz.

Silicula *biarticulata*, two-jointed, as in *Cakile maritima*.

Silicula *compressa*, compressed, flattened, as in *Senebiera Coronopus*.

—— *coriacea*, coriaceous, or the consistency of leather, as in *Crambe maritima*.

—— *corrugata*, shrivelled, as in *Senebiera Coronopus*.

—— *decidua*, deciduous, falling off soon after it is ripe, as in *Isatis tinctoria*.

—— *elliptica*, elliptical, as in *Cochlearia danica*.

—— *emarginata*, emarginate, having a notch at the apex, as in the genus *Lepidium*.

—— *globosa*, globose, as in *Cochlearia officinalis*.

—— *hirta*, hairy, as in *Lepidium hirtum*.

—— *integra*, entire, having no divisions, as in *Camelina sativa*.

—— *marginata*, marginate, being thickened at the margin, as in *Isatis tinctoria*.

—— *obcordata*, obcordate, the heart-shape reversed, as in *Thlaspi perfoliata*.

—— *obovata*, obovate, the egg-shape reversed, as in *Thlaspi alpestre*.

—— *orbiculata*, orbicular, of a circular form, as in *Thlaspi arvense*.

—— *rugosa*, rough, reticulated with veins, as in *Cochlearia anglica*.

—— *subintegra*, almost entire, having a slight notch at the apex, as in *Cochlearia Armoracia*.

Siliculosa (dimin. from *siliquosa*), the first order of the class Tetradynamia, containing plants with perfect flowers, which have their seed-vessels in the form of a pouch.

Siliqua (from ξυλογλυκον), a long dry seed-vessel with two valves, the seeds of which are alternately fixed to both sutures. The dissepiment is the partition which divides it into two loculaments or cells, wherein the seeds are placed. The varieties of this species of pericarp are explained in the following terms, viz.

Siliqua *adscendens*, ascending, as in *Arabis Thaliana*.
—— *articulata*, jointed, as in *Raphanus Raphanistrum*.
—— *compressa*, compressed, as in *Arabis hirsuta*.
—— *compressiuscula*, slightly compressed, as in *Cheiranthus fruticulosus*.
—— *elastica*, elastic, when bursting and projecting its seeds with great force, as in *Cardamine impatiens*.
—— *elliptica*, elliptical, as in *Nasturtium amphibium*.
—— *ensiformis*, ensiform, shaped like a two-edged sword, as in *Sinapis alba*.
—— *erecta*, standing upright, as in *Hesperis inodora*.
—— *evalvis*, destitute of valves, as in *Raphanus Raphanistrum*.
—— *glabra*, smooth, as in *Cardamine amara*.
—— *hispida*, hispid, having stiff bristles, as in *Sinapis alba*.
—— *lanceolata*, lanceolate, gradually tapering towards each extremity, as in *Dentaria bulbifera*.
—— *linearis*, linear, long and narrow, as in *Cardamine pratensis*.
—— *recta*, straight, as in *Brassica Napus*.
—— *rostrata*, beaked, as in *Sinapis arvensis*.
—— *sulcata*, furrowed, as in *Raphanus maritimus*.
—— *tetragona*, four-cornered, having four angles, as in *Sinapis nigra*.
—— *torosa*, torose, swelling out in knobs, as in *Brassica oleracea*.
—— *unilocularis*, unilocular, having only one cell, as in *Raphanus Raphanistrum*.

Siliquosa (from *siliqua*, a pod), the second order of the class Tetradynamia, containing perfect flowers with an oblong seed-vessel or pod, which has its seeds attached alternately to either suture.

Similis, like to; having the same form or appearance.

Simplex (i. e. *sine plica*), simple, single, undivided; applied to a leaf, stem, or root.

Simplicissimus (super. of *simplex*, simple), wholly undivided.

Sinistrorsum (from *sinistra*, on the left hand, and *versus*, towards), applied to a stem which twines from left to right.

Sinuatus (from *sinus*, an opening or cavity), sinuated. Vide Folium.

Sinus, a notch or cavity.

Situs (from *sino*, to suffer or allow), this term is applied to the situation and disposition of the leaves upon a stem, whether opposite, alternate, scattered, crowded, &c.

Smaragdinus (from σμαραγδινος), very green, the colour of an emerald.

Sobolis (from *sub* and *oleo*, i. e. *cresco*, to increase), a shoot, an horizontal prolongation of a root, which produces a new plant.

Solidus (from *solido*, to make firm), solid, firm, without any cavity, as is exemplified in a bulbous root.

Solitarius (from *solus*, alone), solitary, separate, far apart. only one in a place. This is applied to the stipule, peduncle, flower, and seed.

Solum (from *soliditas*, firmness), soil, the ground.

Solutus (from *solvo*, to loosen), loosed; contrary to *adnatus*. Vide Stipula.

Somnus (from υπνος, *somnus*, sleep), the different form and appearance assumed by plants during the night; especially conspicuous in the leaflets of pinnate leaves folding together.

Sordidè-flavus, a dirty yellow colour.

Sorus, a mass; a term used for the seed-vessels found on the back of the frond in the genus *Filices*. The following are the different kinds, viz.

Sorus *biserialis*, two-rowed, when the mass runs into two close lines, as in the genera *Danæa* and *Angiopteris*.

—— *continuus*, continuous, uninterrupted, when it proceeds without interruption, as in the genera *Pteris* and *Blechnum*.

—— *interruptus*, interrupted, when it is frequently separated, as in *Woodswardia*.

—— *linearis*, linear, when it is long and narrow, and proceeds in a straight line, as in *Scolopendrium vulgare*.

—— *longitudinalis*, longitudinal, when it proceeds from the base to the apex, as in *Blechnum boreale*.

—— *lunulatus*, crescent-shaped, when the mass is hemispherical, as in the genus *Lonchitis*.

—— *marginalis*, marginal, when it proceeds along the margin of the pinnula, as in *Aspidium Oreopteris*.

—— *sparsus*, scattered, when dispersed in an irregular manner, as in the genus *Asplenium*. In the young state, the *sori* of this genus are all linear, and regular, but at length become dispersed.

—— *subrotundus*, roundish, when the mass is nearly globular, as in *Polypodium vulgare*.

—— *transversus*, transverse, when it stretches from the margin to the centre, as in *Scolopendrium vulgare*.

Spadiceus (from *spadix*), spadiceous, applied to an aggregate flower, which has its receptacle enclosed within a *spatha*. Vide Flos.

Spadix (from σπαδιξ, à σπαδιζω, *detraho*), an elongated receptacle which is found in the Palm tribe, and some other plants: it is produced from within a spatha or sheath. The following are the varieties, viz.

Spadix *biflorus*, when it supports two flowers.

—— *coloratus*, coloured, as in the genus *Arum*, and the Palm tribe.

Spadix *multiflorus*, when there are many flowers supported by it, as in *Acorus Calamus*.

—— *ramosus*, branched, as in the *Palmæ*.

—— *simplex*, simple, as in the genera *Dracontium* and *Arum*.

—— *uniflorus*, when there is but one flower.

Sparsus (from *spargo*, to sprinkle), scattered, applied to a stem which has irregularly placed branches, or leaves and peduncles; also to the *sori* on the fronds of some of the *Filices*.

Spatha (from σφαθη), a sheath, a species of membranous calyx, which bursts longitudinally, and is remote from the flower. This is exemplified in *Galanthus nivalis*, and various species of *Narcissus*. In the genus *Arum*, and the Palm tribe, it encloses an elongated receptacle. A spatha is either

Spatha *biflora*, two-flowered, as in *Narcissus biflorus*.

—— *bivalvis*, two-valved, when opening on both sides, as in *Stratiotes aloides*.

—— *dimidiata*, halved, when investing the fructification only on the inner side, as in *Ixia uniflora*.

—— *imbricata*, imbricating.

—— *marcescens*, withering and falling off, before or soon after the bursting of the flower, as in the genus *Allium*.

—— *multiflora*, many-flowered, as in *Narcissus dubius*.

—— *persistens*, persistent, when it remains with the fruit, as in *Heliconia Bihai*.

—— *uniflora*, single-flowered, as in *Narcissus poeticus*.

—— *univalvis*, having only one valve, which bursts lengthways. This character is the most common to be met with in this species of calyx.

Spathulatus (from *spatha*, an instrument which is broad, used for spreading), spathulate, applied to leaves of a roundish figure, tapering into an oblong base. Vide Folium.

Species (from *specio*, to behold); by this term we understand the distinct forms of plants, originally so created, and producing, by certain laws of generation, others like themselves. There are, therefore, as many species as there are different forms or structures of vegetables now in existence.

Specificus (from *species*, a shape, or figure), specific. Vide character.

Spermatocystidium (from σπερμαΐζω, *semenfero*, *sperma*), a term used by Hedwig to denote the seed-vessel which contains the sperm or powder in the *Musci*, &c.

Sphacelatus (from σφαλλω, *to destroy*), sphacelated, when parts are subject to decay. Vide Squama.

Sphæricus, spherical, in the shape of a sphere.

Spica (from σταχυς, *a spike*), a mode of inflorescence in which numerous flowers are arranged upon one common footstalk, without any partial one, or if there be any a very short one. A spike generally grows erect, and the lower flowers expand much sooner than the upper ones. The flowers are generally all crowded together, but sometimes they form separate groups; when this is the case, the spike is termed interrupted or whorled.

The different varieties of this will be found under the following terms, viz.

Spica *axillaris*, axillary, when standing in the angles of the leaves.

—— *capitata*, capitate, when formed into a head, as in *Mentha citrata*.

—— *ciliata*, fringed, when there are hairs between the flowers.

—— *comosa*, tufted, when there is a bunch of leaves upon the top of the spike.

—— *composita*. Vide Racemosa.

Spica *conjugata*, conjugate, when two spikes stand on one stalk, and are united at the base.

—— *cylindracea*, cylindrical, when the flowers are so placed that the spike is of equal thickness both above and below, as in *Polygonum Bistorta*.

—— *disticha*, two-ranked, when the flowers are arranged on each side of the footstalk, as in *Bromus pinnatus*.

—— *fasciculata*, fasciculate, when several stand upon one footstalk, and are united at the base into a bundle.

—— *foliosa*, leafy, when there are leaves intermixed with the flowers.

—— *glomerata*, glomerated, when the spike consists of flowers collected together in an irregular globular form, as in *Dactylis glomerata*.

—— *imbricata*, imbricated, when the flowers are placed so near together that one lies upon another.

—— *interrupta*, interrupted, when the flowers are divided at intervals by smaller ones, as in *Mentha spicata*.

—— *lateralis*, lateral, when placed upon the side of the stalk.

—— *linearis*, linear, when it is slender and tapering, as in *Cynosurus cristatus*.

—— *oblonga*, oblong, when it is much longer than broad, as in *Mentha sylvestris*.

—— *obtusa*, obtuse, blunted at the apex, as in *Mentha Piperita*.

—— *ovata*, egg-shaped, as in *Phleum alpinum*.

—— *ovato-oblonga*, oblong-ovate, as in *Polygonum Persicaria*.

—— *ramosa*, branched, or compound, when several spikes are placed upon a branched or divided footstalk. This species of compound spike is exemplified in *Lavandula pinnata*.

—— *secunda*, when the flowers are arranged only on one

side, so that the other is naked, as in *Cynosurus cristatus*.

Spica *simplex*, a spike is termed simple, when it stands single, and without branches, as in *Triticum loliaceum*.

—— *terminalis*, terminal, when the spike stands upon the apex of the stalk or branches, as in *Polygonum amphibium*.

—— *verticillata*, whorled, when the flowers are collected together in such a manner as to appear in whorls round the stem. This variety occurs in several of the species of *Mentha*.

Spicula (dimin. from *spica*), a spikelet or little spike, a mode of inflorescence peculiar to grasses, wherein the florets are collected in one calyx, and arranged on a partial footstalk, which constitutes the spikelet. The following are the different varieties, viz.

Spicula *biflora*, when there are two flowers, as in the genus *Aira*.

—— *cernua*, drooping, when hanging downwards, as in *Bromus sterilis*.

—— *compressa*, compressed, flattened, as in *Bromus arvensis*.

—— *disticha*, two-ranked, when the flowers in the spicula are placed in two opposite rows on the same level, as in the genus *Cyperus*.

—— *erecta*, erect, standing upright, as in *Bromus erectus*.

—— *lanceolata*, lanceolate, tapering at each extremity, in the form of a lance, as in *Bromus arvensis*.

—— *linearis*, linear, when it is long and narrow, but of equal breadth throughout, as in *Glyceria maritima*.

—— *multiflora*, when there are many flowers, as in *Glyceria fluitans*, which has from 7 to 11 obtuse florets.

—— *oblonga*, oblong, when the spicula is much longer than broad, as in *Festuca ovina*.

Spicula *ovata*, ovate, when it resembles the form of an egg, as in *Melica uniflora.*

—— *teres*, round, when the flowers in the spicula are so placed that their horizontal sections form a column, as in *Festuca fluitans.*

—— *triflora*, when there are three flowers, as in *Sesleria cœrulea.*

—— *uniflora*, when there is but one perfect flower as in *Melica uniflora.*

Spina, a thorn, a species of armature which, when seated on stems or twigs, proceeds from the wood, not from the bark.

The following are the different varieties, viz.

Spina *axillaris*, axillary, when proceeding from the angle formed by a branch or leaf, with the stem, as in *Gleditsia triacanthos.*

—— *calycina*, when fixed on the calyx, as in the genus *Carduus.*

—— *capsularis*, capsular, when placed upon the seed-vessel, as in *Datura Stramonium.*

—— *caulina*, when fixed upon the stem, as in *Prunus spinosa.*

—— *decussata*, when alternately crossing each other, as *Genista lusitanica.*

—— *divisa*, divided, when separated at the point. Many fruits are protected by this species of armature, as in the genera *Trapa*, *Tribulus*, *Spinacia*, &c.

—— *foliaris*, when growing on the surface of the leaf, as in *Carduus marianus.*

—— *marginalis*, marginal, when placed upon the margin of the leaf, as in *Ilex Aquifolium.*

—— *pungens.* Vide Rigida.

—— *ramosa*, branched, as in *Gleditschia horrida.*

—— *recurvata*, recurved, bent outwards, as in *Costus nobilis.*

Spina *rigida*, very sharp and rigid, as is exemplified upon the seed-vessel of *Datura Stramonium*.

—— *setacea*, setaceous, bristle-like, as in *Cactus opuntia*.

—— *simplex*, simple, when entire and undivided.

—— *subulata*, awl-shaped, as in *Cactus Tuna*.

—— *stipularis*, when placed upon the stipula, as in *Mimosa nilotica* and *horrida*.

—— *stricta*, stiff, and standing straight out in a horizontal direction, as in *Mimosa nigra*.

—— *terminalis*, terminal, when placed at the end of a branch or leaf, as in some of the species of the genus *Cactus*.

—— *urens*, stinging, as in *Urtica dioica*.

Spinescens (from *spina*, a thorn), spinescent, applied to a petiole, stipule, or bractea, which becomes hard and thorny.

Spinosus, when set with thorns, which occurs upon some stems.

Spiralis (from σπυρα, *spira*, a wreath), spiral, when twisted like a cork-screw, as in the cotyledons of the *Holeraceæ*, the anthers of *Chironia*, and the tails of the seed in the genus *Geranium*.

Spithama (from σπιθαμη, *a short span*), the space between the end of the thumb and that of the little finger. Linnæus discarded the geometrical measures, and principally adopted those proportions taken from the hand and arm.

Spithamæus (from *spithama*), belonging to the measure of a span, said to be the distance between the middle finger and the thumb.

Spongiosus (from σπογγια, *spongia*), spongy, a substance in the nature of a sponge.

Sporæ (from σπορα, *semen*), the seed or ovule of the *Fungi*, which are termed sporules.

Sporangium, according to Hedwig, is the bladder which contains the sporæ of the *Fungi*.

Spurius, spurious, false. Vide Bacca.

Squama, a scale; a dry, membranous, leafy appendage, which appears on the surface of some plants; also some roots are composed of scales. The following are the varieties, viz.

Squamæ *acutiusculæ*, slightly acute, as in the genus *Pyrethrum*.

—— *æquales*, equal, when they are of the same length and breadth, as in *Bellis perennis*.

—— *carnosæ*, fleshy, in which case the scales imbricate each other, as in the root of *Lilium candidum*.

—— *cartilagineæ*, cartilaginous or gristly, as in the genus *Sagus*.

—— *coloratæ*, coloured, as in the genus *Gnaphalium*.

—— *conniventes*, connivent, when the tips approach towards each other, as in *Solidago Virgaurea*.

—— *imbricatæ*, imbricating, when lying over one another like tiles on a roof, as in the genus *Chrysanthemum*.

—— *inæquales*, unequal, as in the genus *Anthemis*.

—— *membranaceæ*, membranaceous, and disposed in elegant stars, as in *Croton tinctorius*.

—— *paleaceæ*, chaffy, composed of a thin, dry, membranaceous substance, as in the genus *Eryngium*, whose scales are of a blue colour, intermixed with the flowers.

—— *rotundatæ*, round, when of a circular form, as in the genus *Artemisia*.

—— *scariosæ*, scariose, when of a dry substance, and sonorous to the touch, as in the genus *Gnaphalium*.

—— *sphacelatæ*, sphacelated, decaying, which occurs to the apices of the scales in the genus *Senecio*.

Squamosus (from *squama*), scaly, applied to the bulb and stem.

Squarrosus (from *squarra*, à Gr. σχαρα, *scurf*), squarrose, ragged or scurfy. Vide Calyx.

Stamen (from στημων, *a stamen*, anciently called a chive), a small thread-shaped body (essential to fructification), found within the corolla. It is composed of an Anther which contains the pollen, and a Filament, the small thread-like body which supports the anther.

Stameniferous (from *stamen* and *fero*), stamen-bearing, a term applied to those flowers which bear stamens only.

Stamenodium (from σταμνος, *amphora*, a vessel with two ears), a pillar which has two longitudinal appendages, appearing like so many abortive filaments, and which supports both the anthers and stigma.

Stellatus (from *stella*), stellate; applied to leaves, bristles, and also flowers, having the appearance of a star.

Sterilis (from στερος, *barren*), a term applied to the anthers which are destitute of pollen; also to a frond.

Stigma (from στιγμα, à στιζω, *inuro*, to brand or mark); the stigma is an organ which is placed upon the summit of the style, upon which the pollen is dispersed, and afterwards passes down the style into the germen, for the purpose of fertilizing the seed. The following are the different varieties, viz.

Stigma *acutum*, acute, when the apex is sharp-pointed.

—— *angulosum*, angled, when it has deep furrows, which occasion projecting angles.

—— *bi, tri, multifidum*, according to the number of clefts.

—— *bi, tri, multipartitum*, according to the number divisions.

Stigma *capitatum*, capitate, hemispherical, the underside being flat.

—— *clavatum*, club-shaped, being thick at the top, and narrowing gradually towards the base.

—— *concavum*, hollow, when of a longish form, but quite hollow, as in the genus *Viola*.

—— *convolutum*, convolute, when the points of a divided stigma are rolled inwards.

—— *cruciforme*, cruciform, when it is divided into four parts in the form of a cross.

—— *dentatum*, dentated, when set with fine teeth.

—— *emarginatum*, emarginate, in the shape of an hemisphere, having a notch at the apex.

—— *globosum*, globular, when of a spherical form.

—— *laterale*, lateral, when it is situated on the side of the style or of the germen.

—— *oblongum*, when thick and elongated.

—— *obtusum*, when it is blunt pointed.

—— *peltatum*, peltate, when in the form of a shield.

—— *penicilliforme*, pencil-like, consisting of a number of short, thick, fleshy fibres in the form of a pencil-brush.

—— *petaloideum*, when it has the appearance of a petal, as in the genus *Iris*.

—— *petaliforme*. Vide Petaloideum.

—— *plumosum*, plumose, when it is set with fine hairs, so as to give it a feathery appearance, as is exemplified in the grasses.

—— *pubescens*, pubescent, when it is set with short hairs

—— *revolutum*, revolute, when the points of a bifid or multifid stigma are rolled back outwards.

—— *sessile*, when the stigma is placed immediately upon the germen, there being no style, as in the genus *Tulipa*.

—— *spirale*, when a multifid stigma is rolled up like a cork-screw.

Stigma *trilobum*, three-lobed, which consists of three rounded bodies, somewhat pressed flat.

—— *uncinatum*, uncinate, when hooked at the end.

Stimulus (from στιγμος, *stigmulus per sync. stimulus*), a sting, a species of armature of a pungent burning nature, peculiar to some plants, as in the genus *Urtica*.

Stipes (from στυπος, a *stake*), a stipes is a term used for the base of a frond, which is a stem passing into leaves, or not distinct from the leaf, as in the *Filices*. Stipes is likewise used for the stem of the Fungi tribe, as in the genus *Agaricus*; by some this is called the pillar. It is also applied to the thread-like stalk which supports the pappus, and connects it with the seed of some plants. The varieties of stipes found in the Filices are the following, viz.

—— *aculeatus*, prickly, when it is set with sharp prickles.

—— *inermis*, when it is smooth and entire, without any kind of roughness.

—— *nudus*, naked, without any kind of covering, as in the genus *Asplenium*.

—— *paleaceus*, chaffy, when covered with dry membranous scales, as in *Aspidium lobatum*.

—— *squamosus*, scaly, when covered with foliaceous scales, as in *Aspidium cristatum*.

Of the Fungi:

Stipes *bulbosus*, when it has the appearance of a bulbous root, as in *Agaricus comosus*.

—— *carnosus*, fleshy, when of the substance of flesh.

—— *coriaceus*, leathery, when the substance is stiff and pliable like leather, as in *Boletus perennis*.

—— *cylindraceus*. Vide Fistulosus.

—— *fistulosus*, hollow, being cylindrical throughout, as in *Agaricus Rotula*.

—— *lacunosus*, pitted, when there are depressions on the outside, as in *Helvella Mitra*.

Stipes *peronatus*, raised, when from the bottom to the middle it is covered with a woolly substance ending in a kind of meal.

—— *solidus*, firm, consisting of a solid mass, as in *Agaricus rimosus*.

—— *squamosus*, scaly, when covered with firm attached scales, as in *Agaricus melleus*.

—— *squarrosus*, squarrose, when covered with scales which are turned back at the points, as in *Agaricus floccosus*.

—— *ventricosus*, bellied, thicker in the middle than at the end.

Stipitatus (from *stipes*), stipitate; applied to a pappus which is elevated upon a stipe.

Stipula (dimin. from *stipa*, à στυπη, tow), a species of fulcrum peculiar to some plants; in such it is found on each side of the base of the footstalk of the leaves or flowers, and either in pairs, or single, deciduous, abiding, adhering, loose on each side of the stalk or on the outside. The different kinds of stipules are explained in the following terms, viz.

Stipulæ *adnatæ*, adnate, when fixed to the petiole, as in *Rosa canina*.

—— *caducæ*, caducous, when they fall off soon after their evolution, as in *Corylus Avellana*.

—— *ciliatæ*, ciliate, when the margin is set with bristly hairs like eye-lashes, as in *Passiflora fœtida*.

—— *cordatæ*, heart-shaped, as in *Ocymum sanctum*.

—— *deciduæ*, deciduous, when they fall off a short time before the leaves, or a considerable time after their appearance.

—— *decurrentes*, decurrent, as in *Crotallaria sagittalis*.

—— *dentatæ*, toothed, as in *Orobus lathyroides*.

—— *extrafoliaceæ*, when they are placed beneath or on the under side of the leaf, as in *Astragalus onobrychis*.

Stipulæ *filiformes*, filiform or thread-like, as in *Ononis mauritanica.*

—— *foliaceæ*, foliaceous, having the appearance of leaves, as in *Sambucus Ebulus.*

—— *geminæ*, in pairs, when two are present, and stand on each side of the petiole, as in the genus *Rosa.*

—— *integræ*, entire, undivided, as in *Vicia cracca.*

—— *intrafoliaceæ*, when placed above the leaf, as in *Morus nigra* and *alba.*

—— *lanceolatæ*, lanceolate, much longer than broad, and gradually tapering towards each extremity, as in *Cistus helianthemum.*

—— *laterales*, when two stipules are found at the origin of the petiole, as in *Lotus tetraphyllus.*

—— *lunulata*, crescent-shaped, as in *Lathyrus tingitanus.*

—— *oppositifoliæ*, when placed opposite to a leaf on the other side of the stem, as in *Trifolium pratense.*

—— *ovatæ*, egg-shaped, as in *Ononis repens.*

—— *persistentes*, abiding, when they remain until the withering of the leaves, as in *Trifolium pratense.*

—— *pinnatifidæ*, pinnatifid, as in *Viola tricolor.*

—— *sagittatæ*, arrow-shaped, as in *Pisum maritimum.*

—— *semisagittatæ*, semisagittate, when there is the appearance of only half the barb of an arrow.

—— *serratæ*, serrated, when the margin is toothed like a saw, as in *Pisum sativum.*

—— *sessiles*, sessile, as in *Pisum sativum.*

—— *solitariæ*, solitary, when there is only a single stipula, and that standing on the one side of the petiole, as in *Astragalus onobrychis.*

—— *solutæ*, loose, when separate from the petiole.

—— *spinescentes*, becoming thorny, as in *Robinia pseudacacia.*

—— *subulatæ*, subulate or awl-shaped, as in *Cassia glandulosa.*

Stipulæ *vaginales*, sheathing, as in *Hedysarum vaginale.*

Stipulares glandulæ, when there are glands growing on the stipules, or close to them.

Stipularis gemma, when a bud is formed by stipules or scales.

Stipulatio, a term denoting the situation and structure of the stipules.

Stipulatus, stipulated. Vide Caulis.

Stolo, a runner, a species of creeping stem bearing leaves and taking root at every joint, which produces a new plant. This mode of propagation is exemplified in *Viola odorata, Ranunculus repens, Ajuga reptans, Fragaria vesca,* and various others.

Stoloniferus (from *stolo* and *fero,* to bear), applied to those plants which produce runners.

Stramineus (from *stramen*), a straw colour,

Striatus (from *stria,* a furrow), streaked. Vide Caulis.

Strictus (from *stringo,* to be fast), stiff and straight; opposed to *laxus.* Vide Caulis.

Striga (from *strigo,* pro *stringo*), a rigid, lanceolate, acuminate bristle found on the surface of some plants, appearing in a sort of order or rank. This species of armature is supposed to be for the purpose of defending the plant from external injury, as the extreme pungency of its bristles prevents animals from biting it. Examples will be found in the genera *Cactus, Malpighia, Hibiscus,* with some others.

Strigosus (from *striga,* a row or rank), applied to a leaf which is set with stiff lanceolate bristles. Vide Folium.

Strobiliformis (from *strobilus,* a strobile, and *forma,* a resemblance), a term applied to a spiked flower which is in the form of a cone, as in *Justicia Echobium.*

Strobilus (from στρόβιλος, *pinus,* a fir-tree), a strobile or cone, a species of pericarp composed of hard scales which

lie over each other. This species of seed-vessel is exemplified in the genera *Pinus, Cupressus, Bromelia,* &c.

Stroma (from στρωμα, *stratum*), a term used for the part which supplies the place of the fruit-stalk in the natural orders *Nematomyci* and *Gastromyci.*

Strophiolus or Strophiola (from στρωφαω, *circumago*), a warty substance which covers the umbilicus of many seeds, particularly those of leguminous plants. In *Urania* and *Strelitzia,* the strophiolus is a heap of beautiful, coloured, intermingled, and stiff hairs.

Structura (from *struo*), the structure and organization of plants.

Struma (from *struo*), a crop; the *apophysis* or appendage found in the capsules of some mosses.

Stupeus (from *stupa,* tow), stiff matted hairs form what is termed a *stuppa.* This appearance takes place in the filaments of the genera *Dianella* and *Hypandra* (R. Br.), and also in the abortive buds of *Acacia undulata* (Will.).

Stylopodium (from στυλος, *columna,* and ποδιον, *podium*), a term used by Hoffmann to denote the swelled receptacle in some umbelliferous plants.

Stylostemon (from στυλος, *columna,* and στημων, *stamen*), plants which have their filaments placed upon the pistil are denominated, according to the system of Gleditsch, *stylostemones.*

Styliformis (from *stylus* and *forma*), shaped like a style.

Stylus (from στυλος, *columna*), a style, that part of the pistil which is situated upon the germen and elevates the stigma. The following are the different varieties, viz.

Stylus *brevissimus,* when very short.

—— *bi, tri, quadri,* and *multi-fidus,* according to the number of clefts it contains.

Stylus *capillaris*, hair-like, when it is very slender, and of equal thickness.

—— *clavatus*, club-shaped, being thicker above than below.

—— *connatus*, connate, as in the genus *Alopecurus*.

—— *crassus*, gross, being thick and short.

—— *deciduus*, deciduous, falling off very soon.

—— *declinatus*, when it inclines towards the side.

—— *dichotomus*, dichotomous, when divided into two parts which are again divided at the points.

—— *erectus*, when standing in an upright position.

—— *filiformis*, filiform, being of a long thread-like body.

—— *lateralis*, lateral, when attached to the side of the germen.

—— *longissimus*, when much longer than the stamens.

—— *marcescens*, withering when it decays, but not immediately falling off.

—— *persistens*, abiding, when it remains until the maturity of the fruit.

—— *setaceus*, bristly, when it is of a hair-like substance, but stiff, and somewhat thicker at the base.

—— *subulatus*, awl-shaped, being thick at the base, and tapering to a point.

—— *terminalis*, terminal, when it stands on the top of the germen.

Sub; this term in botany, when used in composition with other words, signifies almost, somewhat, thereabouts, approaching to, most commonly.

Subacaulis, almost without a stem.

Subæqualis, nearly equal.

Subamplexicaulis, slightly embracing the stem.

Subcinereus, somewhat of a grey colour; synonymous with *cinerascens*.

Subcordatus, somewhat heart-shaped.

Subdimiato-cordatus, a term expressing the oblique heart-shape.

Subdimiatus, unequally halved, when a leaf extends wider on one side of the midrib than the other.

Subdivisus, subdivided; applied to a part which is divided and then again divided.

Suberosus (from *suber*), cork-like; applied to a stem clothed with bark, which has the substance of cork, as is exemplified in *Quercus suber:* from this tree the cork used in commerce is produced.

Subfuscus, brownish, or of a slight brown colour.

Subiculum, synonymous with *stroma*.

Subintegerrimus, almost entire.

Sublanatus, somewhat woolly.

Submersus, submersed; applied to a leaf which is sunk under the surface of the water. Vide Folium.

Subniger, blackish; the same as *nigricans*.

Subnudus, almost naked.

Suborbiculatus, almost orbicular.

Subovatus, subovate, when nearly egg-shaped.

Subpetiolatus, scarcely petiolated, or with a very short petiole.

Subramosus, somewhat branched.

Subrepandus, somewhat repand.

Subrotundus, roundish, or somewhat rounded; the same as *suborbiculatus*.

Subscaber, roughish.

Subsessilis, subsessile, or almost sessile, when the foot-stalk is nearly imperceptible.

Subspecies, a term applied to plants which have changed their natural form, either from the difference of soil, climate, or mode of treatment.

Subspongiosus, somewhat spongy.

Substantia, substance or matter. The substance of a vegetable consists of the *epidermis* covering the *cortex*,

depositing from its inner surface the *liber*, which in due time changes into wood, enclosing the *medulla;* or on the other hand, it is the *medulla* encompassed by the wood which is formed from the *liber*, separating from the *cortex*, and covered by the *epidermis*.

Substramineus, somewhat of a straw-colour.

Subtrifidus, slightly trifid, or three-cleft.

Subulatus (from *subula*, an awl), subulate, or awl-shaped, applied to a leaf, stipule, filament, anther, style, receptacle, and also the scales of the calyx.

Subuniflorus, a term signifying that a peduncle has only one or two flowers, one of which is most commonly abortive.

Subviridis, greenish, or somewhat of a green colour.

Succulentus (from *succus*), juicy, containing a fluid.

Succus (from *sugus*, à *sugo*, to suck), juice, a fluid substance.

Suffruticosus (from *sub* and *frutex*), somewhat shrubby; permanent at the base, but its branches annually decaying.

Suffrutex (from *sub* and *frutex*), an under-shrub, a plant which sends out several woody stems from the same root. The sign to distinguish shrubs and trees is ♄.

Sulcatus (from *sulcus*, à *sulco*, to till or plough), applied to a stem which is furrowed. Vide Caulis.

Sulphureus, the colour of sulphur.

Superficies (from *super*, i. e. *supra* and *facies*), applied to the surface or disk of a leaf. The upper surface is called *pagina superior* or *discus supinus;* the lower surface, or back of the leaf, *pagina inferior* or *discus pronus*.

Superflua (from *super*, i. e. *supra* and *fluo*), the second division of the order Polygamia in class Syngenesia, containing superfluous flowers, from which circumstance it derives its name. The florets in the disk are perfect,

bearing stamens and pistils, which are united at the top; those in the circumference bearing pistils only, but all producing perfect seeds.

Superus (from *super*), superior, applied to a flower and germen. The flower is superior when the receptacle is placed above the germen. The germen is superior when enclosed within the corolla, and having an inferior calyx. Vide Flos and Germen.

Supinus, the upper surface of a leaf.

Supra-axillaris. Vide Supra-foliaceus.

Supra-decompositus, thrice compound. Vide Folium.

Supra-foliaceus, when the footstalk of a flower is inserted into the stem, above the leaf, petiole, or axil.

Surculus (dimin. from *surus* or *surrus*, a large branch; originally *surcus*, à *surco*), a shoot; used by Linnæus for the stems of mosses. The *surculi* or stems of mosses vary from a line to several feet in length, and are simple or branched, erect, creeping, or pendulous, as is exemplified in the following varieties, viz.

Surculus *bipinnatus*, doubly pinnate, when the pinnated branches are again divided, as in *Hypnum parietinum*.

—— *dendroides*, tree-like, when standing erect, and at the top of the stem are numerous crowded branches, having the appearance of the top of a tree, as in *Hypnum dendroides*.

—— *erectus*, erect, when a simple stem rises perpendicularly, as in *Polytrichum commune*.

—— *fluitans*, floating, when swimming under water in a perpendicular direction, and attached to some fixed body, as in *Fontinalis antipyretica*.

—— *intricatus*, intricate, branched, and the numerous protuberant branches running into one another.

—— *pendulus*, pendulous, when the branches hang downwards, as in *Sphagnum palustre*.

Surculus *pinnatus*, pinnated, having at two opposite sides simple branches of nearly the same length, at equal angles with the stalk.

—— *procumbens*, prostrate, when lying along the ground.

—— *prolifer*, proliferous, when there are new shoots proceeding from the old stem, as in *Hypnum proliferum*.

—— *ramis deflexus*. Vide Pendulus.

—— *ramosus*, branched, when divided into a number of branches, as in *Hypnum riparium*.

—— *ramosissimus*, when very much branched, as in *Hypnum lutescens*.

—— *repens*, creeping, when prostrate, and the branches constantly lengthening and taking root, as in *Hypnum fluviatile*.

—— *simplex*, simple, when there are no branches, as in *Polytrichum commune*.

—— *triplicato-pinnatus*, trebly pinnated, when the bipinnate branches are divided into other pinnate branches, as in *Hypnum recognitum*.

—— *vagus*, irregular, when the branches are placed without any order, as in *Hypnum piliferum*.

Sutura (from *suo*, to join together), a suture, an organ in a bivalved pericarp, to which the valves are united, and also to which the seeds are attached.

Sylvaticus (from *sylva*), a term which denotes an herbaceous plant having a woody stem, as in *Orobus sylvaticus*, *Hieracium sylvaticum*, &c.

Syngenesia (from συν, *una*, and γενεσις, *generatio*), the nineteenth class of the Linnean system, containing plants with perfect flowers, which are compound, and have their stamens united at the top into a cylinder.

Systema, a system is a regular arrangement of natural bodies according to some certain characters. In botany it consists of five divisions: 1st, The class; 2d, The

order; 3d, The genus; 4th, The species; 5th, The variety.

T

Tabescens (from *tabesco*, to waste away), withering; used the same as *marcescens*.

Tectus (from *tego*), covered.

Tegmentum (from *tego*), a covering, signifying the pericarp as a cover serving to protect the seed; and the corolla as protecting the parts of fructification.

Tenuis (from τανυω or τενω, *teneo*), signifies both slender and thin, as *tenuifolia planta*, a plant having thin leaves. *Sinapis tenuifolia* and many others demonstrate this character.

Teres (from *tero* quasi *terendo*), round; applied to branches, leaves, petioles, and peduncles, which resemble a columnar shaft, tapering gradually from the bottom upwards.

Teretiusculus (dimin. from *teres*), roundish, or inclining to a columnar form.

Tergiminus (from *ter*, i. e. *tres*, and *geminus*), tergeminate, or three times doubled. Vide Folium.

Terminalis (from τερμα, *terminus*, a bound or limit), terminal, appearing at the end of a branch or stem; applied to a scape, peduncle, &c. when terminated by flowers; opposed to *axillaris*.

Ternatus (from *ternus*), ternate. Vide Folium.

Ternus (from *ter*, i. e. *tres*), three together; applied to leaves, expressing the number which are placed in each whorl; to peduncles when three stand together in the same axil, and to flowers when there are three growing together.

Tessellatus (from *tessella*), chequered, when there are veins crossing each other in a leaf or petal, so as to

form a square. In the petal this is remarkably exemplified in *Fritillaria Meleagris.*

Testa (quasi *tosta*, from *torreo*, to burn), the shell or cuticle of a seed, containing all its parts. When there are two proper coats, this is the outer one; when there is but one, it is termed the shell; and when there are more than two, the second from the *nucleus* is denominated the shell. It is an essential part of the seed, as the nucleus at first is of a fluid nature, and cannot be formed without a coat placed round it. From this cause it is never wanting, although in some mature fruits the seeds appear entirely destitute of an integument, and from the nakedness of the nucleus are termed *acoccous;* yet previous to their arrival to full maturity a shell is perceived, and the apparent defect proceeds from the coat of the ovule being gradually so much extended, or so closely united with the walls of the pericarp, that it cannot be distinguished from the nucleus, as is exemplified in the genus *Rhizophora;* or may be more easily separated from the nucleus than the pericarp, as in the genus *Laurus.*

Testiculatus (from *testiculus*), a root having two bulbs, as in *Orchis mascula.*

Tetradynamia (from τεσσαρες, *four*, and δυναμις, *power*), the fifteenth class of the Linnean system, containing plants with perfect flowers, which have four long and two short stamens; the two short ones standing directly opposite to each other. Flowers cruciform.

Tetragonus (from τετραγωνος, *quadrangularis*, and that from τετρας and γωνια), four-cornered; applied to a square stem which has its angles obtuse and surface even.

Tetragynia (from τεσσαρες, *quatuor*, and γυνη, *mulier*), the fourth order of the Linnean system, containing plants with perfect flowers, which have four pistils.

Tetrandria (from τεσσαρες, *quatuor*, and ανηρ, *homo*), the

fourth class of the Linnean system, containing plants which have perfect flowers with four stamens.

Tetranguria (from τετρας, *four*, and αγγος, a *cup*), a term applied to a pericarp which resembles a cup divided into four parts. It is called a *citrul*, and is exemplified in *Cucurbita Citrullus*.

Tetrapetalus (from τετρας and πεταλον), a tetrapetalous corolla consists of four distinct petals, as is exemplified in the cruciform flowers of the class Tetradynamia.

Tetraphyllus (from τετρας and φυλλον, *folium*), a tetraphyllous calyx consists of four distinct leaflets, as in the genera *Sagina*, *Epimedium*, and also in the class Tetradynamia.

Tetraqueter, four-sided, when the angles are acute and the surface flat.

Tetraspermus (from τετρας, *quatuor*, and σπερμα, *semen*), a term expressive of such plants as produce only four seeds to each flower, as is exemplified in the *Asperifoliæ* and *Verticillatæ*.

Thalamium (from θαλαμος, a *bed*), close round seed-beds in the surface of the frond, surrounded by a peculiar membrane, within which the seeds are enclosed, called *thalamia*.

Thalamostemon (from θαλαμος and στημων *stamen*), when the filaments are found to be placed upon the receptacles they are designated by the term *thalamostemones*.

Thallus (from θαλλος, and that from θαλλω, *to shoot forth*), the universal receptacle in the natural order of Lichens. The partial receptacle is the *apothecium* which immediately encloses the fructification, known under the name of *scutella*.

Theca (from τιθημι, *to place*), a case ; the capsule of mosses, which is either sessile, or supported upon a footstalk, which is termed *seta*.

Thyrsus (from θηρσος), a bunch, a dense or close panicle,

more or less of an ovate form. Examples of this mode of inflorescence are found in *Syringa vulgaris, Tussilago hybrida* and *Petasites.* The *Vitis vinifera* when in flower affords an instance of a true *thyrsus.*

Tomentosum (from *tomentum*), downy or cottony; applied to a leaf or stem which is covered with hairs, so closely interwoven as scarcely to be perceptible.

Tomentum (q. *tondementum,* à *tondeo*), down, a species of pubescence consisting of short hairs closely matted together, and very soft to the touch, as in *Cerastium tomentosum, Origanum Onites,* &c.

Torosus (from *torus*), torose, protuberant, swelling out in knobs; applied to some siliques and other pericarps.

Tortilis (from *tortus, torqueo,* to twist), twisting or coiling like a rope.

Tortuosus. Vide Folium.

Tortus seu contortus (from *torqueo*), applied to a corolla which is twisted before the time of expansion takes place, as in the genus *Vinca;* also to a legumen when the apex is not in a line with the base.

Torulosus (dimin. from *torosus*), swelling in a slight degree.

Trachea (from τραχυς), an air-vessel; the tracheæ are spiral vessels in a plant for the purpose of receiving and dispersing air.

Transversus seu transversalis (from *trans* and *verto*), a partition is said to be transverse in a siliqua, when it is at right angles with the valves of the pericarp.

Trapezius seu trapeziformis (from τραπεζιος), having the form of a trapezium; applied to a leaf which has four unequal sides.

Trialatus (from *tres* and *ala*), three-winged, as in the seeds of the genus *Rheum,* &c.

Triandria (from τρεις, *tres,* and ανηρ, *homo*), the third class

of the Linnean system, containing plants which have perfect flowers with three stamens.

Triangularis (from *tres* and *angulus*), applied to a stem or leaf which has three angles.

Tribus, a tribe or family in the vegetable kingdom. The tribes of plants are divided into three, viz.

1st, Monocotyledones; which contain Palms, Grasses, and Liliaceous plants. These constitute the three first nations.

2d, Dicotyledones; comprising herbaceous plants and trees. These constitute the fourth and fifth nations.

3d, Acotyledones; including Ferns, Mosses, Algæ, and Fungi. These constitute the four last nations.

Trica (from θριξ, τριχος, *a hair*), a term applied by Acharius to the black filaments which resemble a curled horse-hair in the genera *Gyrophora* and *Umbilicaria* of Hoffman.

Trichotomus (from τρεις, *tres*, and τεμνω, *seco*), trichotomous, or three-pronged.

Tricoccos (from τρεις, *three*, and κοκκος, *a grain*), a tricoccous or three-grained capsule, swelling out in three protuberances, which is internally divided into three cells, bearing one seed in each. Vide Capsula.

Tricuspidatus (from *tres*, three, and *cuspis*, a point), three-pointed; applied to a stamen which is divided into three sharp points at the apex, as in some species of the *Allium*.

Trifidus (from *tres*, three, and *fissus*, a cleft), three-cleft.

Triflorus (from *tres*, three, and *flos*, a flower), three-flowered, applied to a peduncle which bears three flowers.

Trigonus (from τριγωνος, ex τρεις, et γωνια), three-sided. Vide Caulis.

Trigynia (from τρεις, *tres*, and γυνη, *mulier*), the third order of the Linnæan system, containing plants with perfect flowers, bearing three pistils.

Trijugus (from *tres*, three, and *jugum*, a yoke), three-yoked, applied to a pinnate leaf which has three pairs of leaflets.

Trilobatus seu trilobus (from *tres*, three, and *lobus*, a lobe), three-lobed. Vide Folium.

Trilocularis (from *tres*, three, and *loculus*, a little cell), three-celled, applied to a capsule which is divided into three cells or partitions.

Trinervis (from *tres* and *nervus*, a nerve), three-nerved. Vide Folium.

Triœcia (from τρεις, *three*, and οικος, *a house*), the third order of the class Polygamia, according to the system of Linnæus, which has perfect flowers, stameniferous and pistilliferous flowers, of the same species, on three distinct flowers.

Tripartitus (from *tres*, three, and *pars*, a part), three-parted, when a leaf is divided into three parts down to the base.

Tripetalus (from *tres* and *petalum*, a petal), a term signifying a corolla which has three petals.

Triphyllus (from τρεις, *three*, and φυλλον, *a leaf*), a triphyllous calyx consists of three leaflets.

Tripinnatus (from *tres* and *pinna*, a wing,), tripinnated, a species of supradecompound leaf, consisting of a triple series of pinnate leaves. Vide Folium.

Triplicato-pinnatus, the same as *tripinnatus*.

Triplinervis (from *tres*, *plico*, and *nervus*), triply-nerved. Vide Folium.

Triqueter (from *triquetrus*), three-sided, having three

flat sides; applied to the stem, leaf, scape, petiole, peduncle, and pericarp.

Trisectus (from *tres* and *seco*), cut or divided into three segments.

Triseriales (from *tres* and *series*), three-rowed, a term used to express the gills in the genus *Agaricus*, when there are placed two short rows between two long ones.

Trispermus (from τρεις and σπερμα), three-seeded, applied to a capsule or berry which contains three seeds only.

Triternus (from *tres* and *ternus*), triternate, or triply threefold. Vide Folium.

Trivalvis (from *tres* and *valva*), three-valved, which occurs in some capsules.

Triviale nomen, a trivial name; the common name for the species of a plant, which, by being added to the name of the genus, forms a complete denomination of the species.

Trochlearis (from τροχιλια *vel* τροχαλια), pulley-like, applied to a capsule which has a spiral, screw-like form, as is exemplified in the genus *Helicteres*.

Tropicus (from τροπικος), tropical plants are such as expand in the morning and shut before evening: the hour of unfolding and folding differs as the days increase or decrease in length.

Truncatus (from *truncus*), truncated, applied to the leaf, to the petal, and also to the nectary.

Truncus (from τρεχυος), the trunk or body of a tree.

Tuber (from θυμος, *tumor*, ex θυμαω, *to swell*), a knob, a solid fleshy substance attached to many fibrous-rooted plants. It is situated either immediately at the base of the stem, under the fibres, or is attached by means of cords which proceed from the base of the stem. The tuber itself is not furnished with any fibrils, by

which means it is easily distinguished from the nodular or bulbous roots with which it is so frequently confounded. The various kinds of tuberous roots are as follows, viz.

Tuber *clavæforme conjunctum*, the conjoined club-shaped tuber is of an oblong shape, thicker at the loose extremity, and resembling in some degree a short club. Of this form the *Ranunculus Ficaria* affords a good example.

—— *conjunctum ovatum*, a conjoined ovate tuber is an egg-shaped tuber growing in immediate contact with another, both of which are situated under the base of the stem, as in *Orchis mascula*. This is the *radix testiculata* of former authors.

—— *digitatum*, the digitate tuber receives its name from the tubers resembling fingers, as is exemplified in *Orchis albida*.

—— *fasciculatum*, a fasciculated tuber is formed by a number of tubers being collected together into a bundle, and which are nearly of a cylindrical form. This is remarkably exemplified in *Epipactis Nidus-avis*.

—— *palmatum*, a palmate or palm-shaped tuber receives its name from the resemblance to the palm of the hand, as in *Orchis maculata*.

Of filipendulous or detached tubers, which are attached to the parent plant, by means of cords proceeding immediately from the stem, there are two kinds, viz. the solitary and congregated.

Tubera *congregata*; congregated pendulous tubers are generally of a globular ovate figure; they are attached to the stem by runners or fibres, which connect them with it at various distances, and in indefinite numbers. The best example of this kind of tuber is afforded by the *Solanum tuberosum* or potato.

Tubera *solitarium;* this is an egg-shaped tuber, attached to the extremity of a lateral runner, proceeding from the collar of the stem immediately above the plant bearing the tuber. The only example at present known of this species of solitary tuber is the *Ophrys Monorchis,* which receives its specific name from having apparently but one tuber.

Tuberculatus (from *tuberculum*), tuberculated, from having knobs or tubercles.

Tuberculum (dimin. from *tuber*), a little knob or tubercle, the supposed fructification of some species of Lichens; also the spherical formed vessel in some tribes of *Algæ,* which contains the sporules.

Tuberosus (from *tuber*), a tuberous root.

Tubulatus seu Tubulosus, tubular; applied to a calyx which is running into the form of a tube; to compound flowers, to the nectary in the genus *Helleborus,* also to a hollow stem and leaf.

Tubus (from τυπος), a tube, the cylindrical part of a monopetalous corolla.

Tunicatus (from *tunica*), coated. Vide Bulbus.

Turbinatus (from *turbo,* a top), turbinate, or top-shaped, applied in common to the germ and pericarp. It is also applied to the perianth in the genera *Grislea* and *Memecylon,* and to the nectary in *Narcissus Bulbocodium.*

Turgidus (from *turgeo*), swollen, or puffed out with a wider cavity than is usual. An instance of a turgid legumen is exemplified in the genus *Ononis.*

Turio (from *tyro*), a young tender shoot which appears in the spring of the year, as in *Asparagus officinalis* and *Humulus Lupulus.*

U

Uliginosus (from *uligo*), boggy, a peculiar soil adapted to the growth of some plants, as *Stellaria uliginosa*, *Juncus uliginosus*, &c.

Ulna (from ωλενη), the length of the arm, which is considered two feet.

Umbella (dimin. from *umbra*), a mode of inflorescence, wherin the flower-stalks proceed from one common centre, forming a level or globose surface. An umbel is divided into simple and compound.

Umbella *composita*, a compound umbel is divided into an *umbellula*, or partial umbel, as is exemplified in *Daucus Carota*, and all umbelliferous plants.

—— *simplex*, a simple or universal umbel has a single ray of foot-stalks, bearing their flowers on the top, as in *Primula veris*, *elatior*, &c.

Umbellatus (from *umbella*), umbellated, when bearing flowers in the form of an umbel.

Umbellula (dimin. from *umbella*), a little umbel, the partial umbel or secondary division of an umbelliferous plant, which is situated upon the top of the universal umbel bearing the fructification.

Umbilicatus (from *umbilicus*), umbilicated, applied to a leaf which is shaped like a navel at the insertion of the footstalk.

Umbilicus (from ομφαλος), a depressed surface, surrounded by an elevated margin. In seeds, it is placed upon the scar from which the umbilical cord arises.

Umbo (from αμβων), the boss, a term expressing the point in the centre of the *pileus* in the genus *Agaricus*.

Umbonatus (from *umbo*), bossed, having a prominent point in the centre.

Umbraculiformis (from *umbraculum*, a bower, and *forma*, a shape or form), umbrella-shaped.

Unangulatus (from *unus* and *angulus*), applied to a stem which has but one angle.

Uncia (from ὄγκια), an inch in length.

Uncinatus (from *uncus*, a hook, and that from ὄγκινον, *aduncum*), uncinate, hooked at the end, as the awn of the seed in *Geum urbanum*; also the stigma in the genus *Viola*, and some others.

Undatus seu Undulatus (from *unda*), waved. Vide Folium.

Unguicularis (from *unguis*), a measure of six lines, or half a French inch.

Unguis (from ὄνυξ), the claw, the lower part of a polypetalous corolla.

Unicapsularis (from *unus* and *capsula*), unicapsular, when there is but one capsule to each flower.

Unicus (from *unus*), one alone, single.

Uniflorus (from *unus* and *flos*), one-flowered, applied to a peduncle which has but one flower.

Uniformis (from *unus* and *forma*), uniform, being of equal proportion throughout.

Unilabiatus (from *unus* and *labium*), single-lipped, applied to a labiate corolla which has but one lip.

Unilateralis (from *unus* and *lateralis*, and that from *latus*, *lateris*, a side), unilateral, applied to a raceme which has flowers growing only on one side of the common peduncle.

Unilocularis (from *unus* and *loculus*), a term applied to a capsule which has but one cell.

Univalvis (from *unus* and *valva*), univalvular, when a capsule has but one valve.

Universalis (from *unus* and *verto*), universal, a term applied to the general umbel or involucre.

Urceolatus (from *urceolus* dimin. from *urceus*, ὐρχη, *a pitcher*), pitcher-shaped, applied to the calyx, corolla and nectary, when bellying out in the form of a pitcher.

Urens (from *uro*), stinging, or armed with stings, as *Urtica urens.*

Ustilago (from *uro,* to burn), smut, resembling a dust of a blackish or brown colour, occurring upon the fructification of plants, particularly the grasses, in reality a minute fungous plant.

Utriculus (dimin. from *uter,* a bottle or bladder), a little bladder, a small vessel filled with a secreted fluid. In the genus *Utricularia,* these bladders are attached to the root. The genera *Chenopodium, Atriplex,* and some others, bear their seeds in an utriculus; also many naked-seeded plants.

V

Vagina, a sheath, a membrane which invests the stem of some plants.

Vaginans, sheathing.

Vaginatus (from *vagina*), sheathed. Vide Caulis.

Valva seu Valvula (from *valveo,* to fold up); a valve is the outer coat of a capsule or pericarp, or the several pieces which compose it. The leaflets which compose the glume or corolla in grasses, are called valves; also the scales which enclose the tube in some flowers, as in the genus *Borago,* &c.

Variabilis (from *varius*), variable, when an organ has a disposition readily to change its form.

Variegatus, variegated, a discoloration which occurs on the leaves of some plants, which originally is occasioned by disease.

Varietas (from *vario*), a variety is a subspecies of the same plant, changed by some accidental cause.

Vasa scalaria, vessels or canals with transverse openings, which do not show the spiral windings of fibres, and

which cannot be unrolled. They are formed by an original spiral vessel meeting with perpendicular fibres in its sides, which fibres cross the winding lines longitudinally, and unite them together.

Vasa spiralia, spiral vessels of plants are usually of a larger bore than the sap-vessels, and are called the *tracheæ*, or canals for receiving and distributing air through the plant.

Vasculares (from *vasculum*, dimin. from *vas*), vessels which contain the sap.

Vena (from *venio*), a vein, the smaller vessels which are found on the surface of a leaf.

Venosus (from *vena*), veined. Vide Folium.

Ventricosus (from *venter*), ventricose or bellied, applied to a perianth which is swelled out in the middle, or to a corolla, as in *Digitalis purpurea*.

Ventriculosus (from *ventriculum*, dimin. from *venter*), slightly bellied out.

Vernatio (from *ver*, q. *verno*, to bud), the unfolding of the bud; the time of year in which trees unfold their leaves, which is called Spring.

Vernicosus, a term applied to a smooth surface which has a glossy appearance, more properly applied to leaves when they first unfold.

Verruca (from *verrendo*), a wart; the remains of the leaf-stalk, after the decay of the leaf, forms a scar upon the stem or branch, which is termed a *verruca*.

Verrucosus (from *verruca*), verrucose or warty, when a leaf, capsule, or stem, is covered with a fleshy substance in the form of a wart.

Versatilis (from *verto*, to turn), vane-like, applied to an anther being fixed in the centre on the point of the filament, so as to turn like the needle of a compass. This is exemplified in *Lilium Tigrinum*.

Verticalis (from *vertex*), vertical, applied to a leaf which has its surface parallel with the horizon.

Verticillatus (from *verticillus*, à *verto*), whorled, when leaves are growing in whorls round the stem.

Verticillus (from *verto*), a whorl, a species of inflorescence wherein flowers grow in whorls round the stem, as is exemplified in the genus *Mentha*, &c.

Vesicula (dimin. from *vesica*), a vesicle or little bladder, a gland found on the surface of leaves or plants, containing air, as is exemplified in the genus *Mesembryanthemum*, *Aizoon*, *Tetragonia*, &c. The circumstance of vesiculæ being placed on the *Fucus vesiculosus*, is supposed to enable this plant to float more readily in the water. It is also applied in common to the pulp of Oranges and Lemons.

Vesicularis (from *vesicula*, dim. from *vesica*), a vesicular or glandular roughness, which is sometimes found covering the surface of plants.

Vexillaris (from *vexillum*). Vide Æstivatio.

Vexillum (from *velum*), a standard or banner, the upper expanding petal of a papilionaceous corolla, exemplified in the genera *Pisum*, *Lathyrus*, &c.

Vigiliæ (from *vigil*, à *vigilo*), the vigils or watchings of a plant; the circumstance of plants opening, expanding, and closing their flowers daily, as is exemplified in the *Lilium Tigrinum*.

Villosus (from *villus*), a surface is said to be villose, or shaggy, when covered with soft hairs, as the stem in the genera *Tomex* and *Rhus*; also the leaves of *Primula villosa*.

Villus (from *vellus*, q. *vellendo*, à *vello*), a species of pubescence, composed of short soft hairs found covering the surface of plants, which forms a fine nap like velvet, as in *Stachys lanata*.

Vimen (from *vieo*, q. *viendo*), a slender and flexible twig, which may be used in binding.

Violaceus (from *viola*), violet-coloured, a mixture of purple and blue.

Virescens (from *viresco*), greenish, or becoming of a green colour.

Virgatus (from *virga*), a wand-like stem or branch.

Virgultum (from *virgula*, dimin. from *virga*), brush-wood.

Viridis (from *vireo*), a green colour.

Virosus (from *virus*), poisonous.

Viscidus (from *viscum*, s. *viscus*, birdlime), viscid, covered or besmeared with a tenacious juice, as in the leaves and stems of some plants.

Viscositas (from *viscus*), clamminess, the quality of a tenacious moisture.

Viscosus, viscid, the same as *glutinosus*.

Vitellus (from *vita*), the yolk (so named by Gærtner) is situated between the albumen and embryo of a seed, and is absorbed, like the albumen, for the nourishment of the germinating plant. According to Gærtner, it composes the bulk of the seed in the Fuci, Mosses, and Ferns. In the Grasses, the vitellus forms a scale between the embryo and albumen. According to the opinion of Sir J. E. Smith, the vitellus is nothing more than a subterraneous cotyledon.

Vitreus (from *vitrum*, glass), transparent.

Volubilis (from *volvo*), twining, when one part twines itself round another for support.

Volva (from *volva*, à *volvo*), a wrapper, a membranous covering peculiar to the genus *Agaricus*, serving to protect the parts of fructification, and which in due time bursts, and forms a ring round the stipes.

Vulgaris (from *vulgus*), common, the trivial name of many plants.

X

Xerampelinus (from ξηρος and αμπελος), a clove-brown colour.

Z

Zonatus (from *zona*, ζωννυμι, à ζωννυω, *cingo*), zoned, when a surface has curved lines of different colours.

LINNÆAN SYSTEM

OF

CLASSIFICATION.

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A. *Anthers and Pistils upon the same receptacle,* (MONOCLINIA).

* *Anthers and Filaments free.*

a. *Filaments of equal length* (ISOSTEMONES).

CLASS I.—MONANDRIA,.....1 stamen.

Order 1. MONOGYNIA, *Hippuris*, Mare's-tail.
2. DIGYNIA, *Callitriche*, Water-starwort.

CLASS II.—DIANDRIA,.....2 stamens.

Order 1. MONOGYNIA, *Veronica*, Speedwell.
2. DIGYNIA, *Anthoxanthum*, Vernal-grass.
3. TRIGYNIA, *Piper*, Pepper.

CLASS III.—TRIANDRIA,.....3 stamens.

Order 1. MONOGYNIA, *Valeriana*, Valerian.
2. DIGYNIA, Natural Order *Gramineæ* of Jussieu.
3. TRIGYNIA, *Montia*, Water-Chickweed.

CLASS IV.—TETRANDRIA,.....4 stamens.

Order 1. MONOGYNIA, *Scabiosa*, Scabious.
2. DIGYNIA, *Buffonia*.
3. TRIGYNIA, *Boscia*, Boscia.
4. TETRAGYNIA, *Ilex*, Holly.

CLASS V.—PENTANDRIA,.....5 stamens.

Order 1. MONOGYNIA, *Primula*, Primrose.
2. DIGYNIA, *Ulmus*, Elm.
UMBELLATÆ, *Conium*, Hemlock.
3. TRIGYNIA, *Viburnum*, *Sambucus*, Elder.
4. TETRAGYNIA, *Parnassia*, Grass of Parnassus.
5. PENTAGYNIA, *Linum*, Flax.
6. HEXAGYNIA, *Drosera*, Sundew.
7. DECAGYNIA, *Scheflera*.
8. POLYGYNIA, *Myosurus*, Mouse-tail.

CLASS VI.—HEXANDRIA,.....6 stamens.

Order 1. MONOGYNIA, *Galanthus*, Snowdrop.
2. DIGYNIA, *Oryza*, Rice.
3. TRIGYNIA, *Rumex*, Dock.
4. HEXAGYNIA, *Damasonium*.
5. POLYGYNIA, *Alisma*, Water-Plantain.

CLASS VII.—HEPTANDRIA,.....7 stamens.

Order 1. MONOGYNIA, *Trientalis*, Chick-weed Winter-green.
2. DIGYNIA, *Limeum*.
3. TETRAGYNIA, *Sausurus*, Lizard's-tail.
4. HEPTAGYNIA, *Septas*.

CLASS VIII.—OCTANDRIA,.....8 stamens.

Order 1. MONOGYNIA, *Tropæolum*, Indian Cress.
2. DIGYNIA, *Galenia*.
3. TRIGYNIA, *Polygonum Persicaria*.
4. TETRAGYNIA, *Paris*, Herb Paris.

CLASS IX.—ENNEANDRIA,.....9 stamens.

Order 1. MONOGYNIA, *Laurus*, Laurel.
2. TRIGYNIA, *Rheum*, Rhubarb.
3. HEXAGYNIA, *Butomus*, Flowering-Rush.

CLASS X.—DECANDRIA,.....10 stamens.

Order 1. MONOGYNIA, *Pyrola*, Winter-green.
2. DIGYNIA, *Chrysosplenium*, Golden Saxifrage.
3. TRIGYNIA, *Silene*, Catchfly.
4. TETRAGYNIA, *Mycropetalon*.
5. PENTAGYNIA, *Sedum*, Stone-crop.
6. DECAGYNIA, *Phytolacca*.

CLASS XI.—DODECANDRIA,.....from 12 to 19 or 20 stamens.

Order 1. MONOGYNIA, *Asarum*, Asarabacca.
2. DIGYNIA, *Agrimonia*, Agrimony.
3. TRIGYNIA, *Reseda*.
4. TETRAGYNIA, *Calligonum*.
5. PENTAGYNIA, *Glinus*.
6. DODECAGYNIA, *Sempervivum*, Houseleek.

CLASS XII.—ICOSANDRIA,.....20 or more stamens inserted into the calyx.

Order 1. MONOGYNIA, *Prunus*, Cherry-tree.
2. DIGYNIA, *Photinia*.
3. TRIGYNIA, *Sesuvium*.
4. PENTAGYNIA, *Pyrus*, Apple.
5. POLYGYNIA, *Rosa*, Rose-tree.

CLASS XIII.—POLYANDRIA,.....20 or more stamens inserted into the receptacle or corolla.

Order 1. MONOGYNIA, *Papaver*, Poppy.
2. DIGYNIA, *Fothergillia*.
3. TRIGYNIA, *Aconitum*, Wolf's-bane.
4. TETRAGYNIA, *Cimicifuga*, Bug-wort.
5. PENTAGYNIA, *Aquilegia*, Columbine.
6. HEXAGYNIA, *Stratiotes*, Water-Soldier.
7. POLYGYNIA, *Anemone*, *Ranunculus*, &c.

b. *Filaments of unequal length* (ANISOSTEMONES).

CLASS XIV.—DIDYNAMIA,.....4 stamens, 2 long and 2 short.

Order 1. GYMNOSPERMIA, *Mentha*, Mint.
2. ANGIOSPERMIA, *Digitalis*, Foxglove.

CLASS XV.—TETRADYNAMIA,.....6 stamens, 4 long and 2 short; corolla cruciform.

Order 1. SILICULOSA, *Thlaspi*, Bastard Cress.
2. SILIQUOSA, *Cheiranthus*, Stock.

CLASS XVI.—MONADELPHIA,.....Filaments united into one bundle at the bottom.

Order 1.	DIANDRIA,	*Stylidium.*
2.	TRIANDRIA,	*Tamarindus*, Tamarind-tree.
3.	PENTANDRIA,	*Erodium*, Heron's-bill.
4.	HEPTANDRIA,	*Pelargonium*, Stock's-bill.
5.	OCTANDRIA,	*Aitonia.*
6.	DECANDRIA,	*Geranium*, Crane's-bill.
7.	DODECANDRIA,	*Helicteres*, Screw-tree.
8.	POLYANDRIA,	*Malva*, Mallow.

CLASS XVII.—DIADELPHIA,.....Stamens united at the bottom into two bundles or brotherhoods.

Order 1.	PENTANDRIA,	*Petalostemum.*
2.	HEXANDRIA,	*Fumaria*, Fumitory.
3.	OCTANDRIA,	*Polygala*, Milkwort.
4.	DECANDRIA,	*Pisum*, Pea.

CLASS XVIII.—POLYADELPHIA,.....Stamens united at the bottom into more than two bundles or brotherhoods.

Order 1.	DECANDRIA,	*Theobroma Cacao*, ChocolateNut.
2.	DODECANDRIA,	*Abroma.*
3.	ICOSANDRIA,	*Melaleuca.*
4.	POLYANDRIA,	*Hyperioum*, St John's Wort.

CLASS XIX.—SYNGENESIA,.....Anthers united at the top into a cylinder.

Order 1.	POLYGAMIA ÆQUALIS, All perfect florets,	*Leontodon*, Dandelion.
2.	POLYGAMIA SUPERFLUA, Perfect, with pistilliferous or superfluous florets,	*Artemisia*, Wormwood.
3.	POLYGAMIA FRUSTRANEA, Florets in the disk perfect, in circumference abortive.	*Helianthus*, Sunflower.
4.	POLYGAMIA NECESSARIA, Florets in disk stamenifer-ous, in circumference pistilliferous,	*Calendula*, Marigold.

Order 5. POLYGAMIA SEGREGATA, Each floret with a distinct calyx besides the common calyx, } *Echinops*, Globe-Thistle.

CLASS XX.—GYNANDRIA,.....Stamens united to the Pistil.

Order 1. MONANDRIA, *Orchis.*
2. DIANDRIA, *Cypripedium*, Ladies' Slipper.
3. TRIANDRIA, *Salacia.*
4. HEXANDRIA, *Aristolochia*, Birthwort.

B. *Anthers and Pistils in separate flowers, on the same or different plants* (DICLINIA).

CLASS XXI.—MONŒCIA,.....Stamens in one flower, pistils in another on the same plant.

Order 1. MONANDRIA, *Euphorbia*, Spurge.
2. DIANDRIA, *Anguria.*
3. TRIANDRIA, *Crex*, Sedge.
4. TETRANDRIA, *Urtica*, Nettle.
5. PENTANDRIA, *Bryonia*, Bryony.
6. HEXANDRIA, *Cocos*, Cocoa Nut.
7. POLYANDRIA, *Corylus*, Hazel.
8. MONADELPHIA, *Pinus*, Fir-tree.
9. SYNGENESIA, *Momordica Elaterium*, Squirting Cucumber.
10. GYNANDRIA, *Andrachne*, Bastard-Orpine.

CLASS XXII.—DIŒCIA,.....Stamens and pistils in separate flowers, on different plants of the same genus.

Order 1. MONANDRIA, *Pandanus*, Screw-Pine.
2. DIANDRIA, *Salix*, Willow.
3. TRIANDRIA, *Empetrum*, Crake-berry.
4. TETRANDRIA, *Viscum*, Misseltoe.
5. PENTANDRIA, *Humulus*, Hop.
6. HEXANDRIA, *Tamus*, Black Bryony.
7. OCTANDRIA, *Populus*, Poplar tree.
8. ENNEANDRIA, *Mercurialis*, Mercury.
9. DECANDRIA, *Carica*, Papaw-tree.

10. DODECANDRIA, *Menispermum*, Moon-seed.
11. ICOSANDRIA, *Citrosma.*
12. POLYANDRIA, *Cycas*, Cycas or Sago Palm.
13. MONADELPHIA, *Juniperus*, Juniper.
14. GYNANDRIA, *Gluytia.*

CLASS XXIII.—POLYGAMIA,...Perfect flowers and dicœcious flowers on the same or on different plants, of the same genus.

Order 1. MONŒCIA, *Atriplex*, Orach.
2. DICŒCIA, *Brosimum*, Bread-nut.
3. TRICŒCIA, *Ficus*, Fig-tree.

CLASS XXIV.—CRYPTOGAMIA,...Fructification imperfectly understood.

Order 1. FUNGI, *Agaricus*, Mushroom.
2. HYPOXYLA, *Sphæria.*
3. LICHENES, Lichens.
4. ALGÆ, Sea-weeds.
5. CHARACEÆ, *Chara.*
6. HEPATICÆ, *Jungermannia.*
7. MUSCI, Mosses.
8. FILICES, Ferns.
9. LYCOPODINEÆ, *Lycopodium*, Club-moss.
10. PARKERIACEÆ, *Parkeria* of Hooker.
11. MARSILIACEÆ, *Pilularia*, Pill-wort or Pepper-grass.
12. EQUISETACEÆ, *Equisetum*, Horse-tail.

FINIS.